Standard operating procedures for the use of animals in schools, preschools & child care centres

Department for Education Animal Ethics Committee

This is a mandated procedure under the operational policy framework. Any edits to this procedure must follow the process outlined on the creating, updating and deleting operational policies page.

Overview

This procedure provides direction for the proper use and care of animals in Department for Education settings.

After a review of the department Animal Ethics Committee in 2008 by the department of Environment and Heritage, a new administrative procedure for the approval to keep animals on site was introduced commencing January 2009.

This process is very lengthy and requires information which does not necessarily ensure appropriate care of animals. It did not encourage sites to comply with the requirement therefore many sites were keeping animals without approval from the department's Animal Ethics Committee. Many sites also indicated that since the introduction of the new application form it is so time consuming they were therefore choosing to no longer keep animals on site or borrow animals from the Nature Education Centre.

At the request of the department's Animal Ethics Committee, the Animal Welfare Unit, Department for Environment and Heritage (DEH) convened a meeting of the government and Non-Government Schools (NGS) Animal Ethics Committees and the Australian New Zealand Council for the Care of Animals in Research and Teaching (ANZCCART) to discuss opportunities to retain and enhance the protection afforded to animals in schools, preschools and child care centres whilst reducing any unnecessary administrative burden.

As a result of the meeting it has been decided to implement a simpler process for sites to keep animals. Activities involving animals in schools are divided into 5 categories. There is a 6th category of prohibited procedures. These are outlined in full in this document.

Briefly the approval process will be as follows:-
Category 1: no approval required.
Category 2: can be approved by the Principal / Director or delegated Animal Ethics Focus Person or teacher.
Category 3: approval is required by the Principal / Director
Categories 4 -5: require approval by the Animal Ethics Committee.

A new easier to complete application form for Categories 4 and 5 has been developed.
The new process commenced at the beginning of Term 3 2010.

Contents

Reporting to the Animal Ethics Committee and statistics

At the end of each year, sites must advise the department's Animal Ethics Committee of the number of Category 2, 3, 4 and 5 animals kept for inclusion in the statistics of animals used for research and teaching reported to the department of Environment and Natural Resources (DENR). The Nature Education Centre is not included in the statistics because data is provided directly. Category 1 animals are also not included as they are only observed by students.
Refer Appendix 1 for copy of the form – AEC 110.

The System for approval of Animals in Schools

Category 1

Approval level

No approval required if the activity is undertaken in accordance with a Standard Operating Procedure endorsed by the department's AEC. If there is any change to the Standard Operating Procedure approval is required by the department's AEC.

Student interaction, training or responsibility

None. The animals are only observed by students. The animals are not owned by the school and the students do not feed, handle or in any way interact with them. The teacher or the owner is responsible for all husbandry and care.

Reporting to the Animal Ethics Committee and statistics

None. These animals are not included in the statistics of animals used for research and teaching.

Activities included in this category

Category 1 activities are purely observational

- Observation of animal behaviour
- Observation of pets under the control of their owner
- Excursions to observe animals in their natural surroundings or to zoos or wildlife parks
- Excursions to farms for observation of animal behaviour and husbandry activities, appropriate to the age, prior experience and maturity of the students

Category 2

Approval level

Approval by the School Principal if the activity is undertaken in accordance with a Standard Operating Procedure endorsed by the department's AEC. The Principal / Director **may delegate** the ability to approve to the Animal Ethics Focus Person, a senior biology teacher or other suitable staff member.

Student interaction, training or responsibility

Students may participate in the routine care of the animal (e.g. feeding, cleaning etc) if they are trained before doing so.

Activities included in this category

- Mustering, drafting (in crush or bailhead), capture, restraint and handling of non-free-living domesticated animals (grooming or holding an animal, collecting a milk sample, non-invasive measurements, leading or riding an appropriately trained animal).
- Observation of particular animal behaviours, e.g. oestrus, parturition
- School performance by outside agencies that have animals as part of their exhibits
- Organisations bringing animals to school (such as Delta Society programs, RSPCA or AVA PetPep program).
- Breeding of mice or other appropriate animal in the classroom.
- The appropriate care of classroom pets.
- Non-invasive measurement of body weight, body condition by visual assessment or condition scoring, growth, body proportions, pulse or blood flow, respiration, skin temperature (non- invasive), age by dentition, scrotum and testicles (palpation).
- Familiarisation activities.
- Administering water as a treatment.
- Collection of wool, milk, faeces or urine samples (non-invasive).
- Administering a topical treatment to the udder.
- Coat care and grooming.
- Tail tagging.
- Animals on loan from the Nature Education Centre. (Note : the NEC will report directly to the Animal Ethics Committee on the number of animals loaned so schools should not include them in their returns)

Category 3

Approval level

Approval by the School Principal if the activity is undertaken in accordance with a Standard Operating Procedure endorsed by the department's AEC. The Principal **cannot** delegate the ability to approve to another staff member.

Student interaction, training or responsibility

Students may participate in the routine care of the animal (e.g. feeding, cleaning etc) if they are trained before doing so and may have a level of responsibility for the maintenance and welfare of the animal.

Reporting to the Animal Ethics Committee and statistics

At the end of each year, the school must advise the department's AEC of the number of Category 3 animals used for inclusion in the statistics of animals used for research and teaching.

Activities included in this category

Category 3 comprises many routine techniques but none which requires the breaking of skin or any blood loss (e.g. blood samples, ear tagging etc).

- Non-invasive measurement of body condition by ultrasound
- Measurement of mild dietary effects (provided the normal nutritional needs for the lifestage of the animals are met), high/normal protein, high/normal energy, high/normal fat, palatability
- Taming/gentling.
- Training for competition or showing.
- Tethering animals.
- Collection of saliva.
- Measurement of body temperature (invasive).
- Administering topical treatment by backline, spray or dip.
- Administering drench or capsules orally.
- Administering intramamary into teat of udder.
- Coat clipping.
- Hoof paring: sheep and goats.
- Hoof trimming: cattle.
- Shearing of sheep and goats.
- Dagging
- Milking
- Putting nose clips on cattle.
- Loading and unloading animals onto transporters.
- Showing animals at school and away.
- Foot bathing.
- Flystrike treatment.
- Jetting animals.
- Using sire harnesses.
- Restraining with ropes.
- Pregnancy detection by external ultrasound.
- Horn tipping.

Category 4

Approval level

Approval by the department's AEC using a standard template application form approved by the department's AEC for the procedure. The application will also require notification (but not approval) of any category 2 or 3 procedures being done in conjunction with the application. The department's AEC has designed a standard application which clearly defines parameters and conditions. If the proposal does not abide by the parameters a new application must be completed.

Student interaction, training or responsibility

Students may participate in these activities if they are trained before doing so and may have a level of responsibility for the maintenance and welfare of the animal.

Reporting to the Animal Ethics Committee and statistics

At the end of each year, the school must advise the department's AEC of the number of Category 4 animals used for inclusion in the statistics of animals used for research and teaching.

Activities included in this category

Category 4 comprises many routine husbandry techniques which have the potential to be painful or distressing to the animal.

- Breaking-in cattle or horses.
- Administering intraruminal, subcutaneous or intramuscular injections.
- Administering winged capsules orally.
- Administering intravenous injections or intrauterine pessaries.
- Ear marking/tagging of livestock.
- Tattoo application.
- Shearing of alpacas and llamas.
- Crutching.
- Castration of lambs
- Castration of calves
- Tail docking of lambs
- Tail docking of piglets
- Tooth trimming/removal in piglets.
- Beak trimming.
- Oestrus synchronisation.
- Microchip tagging.
- Dehorning cattle under six months of age.
- Detusking boars.
- Disbudding calves and kids.
- Aquaculture and related enterprises
- Commercial activities (for example growing turkeys for commercial sale)
- Collecting and observing frog spawn and tadpoles (refer to Additional Information section).

Category 5

Approval level

Approval by the department's AEC using an application form specifically prepared by the department's AEC for approval of the procedure. The application will also require notification (but not approval) of any category 2 or 3 procedures being done in conjunction with the application.

Student interaction, training or responsibility

Students may participate in these activities if they are trained before doing so and may have a level of responsibility for the maintenance and welfare of the animal.

Reporting to the Animal Ethics Committee and statistics

At the end of each year, the school must advise the department's AEC of the number of Category 5 animals used for inclusion in the statistics of animals used for research and teaching.

Activities included in this category

Category 5 comprises many husbandry techniques which have the potential to be painful or distressing to the animal and require a level of expertise or supervision to ensure that adverse events do not occur.

- Collection of faeces, ruminal fluid or blood (invasive).
- Nose ringing.
- Freeze branding of cattle and horses.
- Artificial insemination.
- Semen collection.

Prohibited Procedures

The following procedures may not be undertaken in schools unless done by a veterinarian.

- Pregnancy detection by rectal palpation.
- The surgical opening of any body cavity (e.g. cattle spaying)
- Performance of surgical procedures without anaesthesia, other than in the conduct of normal animal husbandry operations.

The following procedures **may not be undertaken in schools at all**

- Induction of infectious diseases.
- Nutritional deficiencies.
- Administration of drugs or chemicals other than those recommended for a particular therapeutic purpose.
- Administration of ionising-radiation or other biohazardous material
- Activities, other than approved activities, giving rise to distress.
- Imprinting e.g. simulated parenting.
- Animals used as prizes for raffles.
- Caustic debudding
- Removal of pouch young marsupials for the purposes of hand-rearing (unless the mother is incapable of rearing the joey)
- Breeding animals for the purpose of dissection
- Killing animals other than emergency euthanasia. This does not prohibit sending animals to a slaughter house or market.
- No killing of animals by students.
- Animal carcasses should be disposed of accordingly.
- Fire branding horns of stud sheep.
- Fire branding of cattle and horses.
- Mulesing of sheep.

Additional Information

- A staff member may euthanase animal/s in an emergency situation only (e.g. dog attack of 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 avoidable, students must not be present when the animal is euthanased. The euthanasia and reasons for it must be reported to the Principal and to the department's AEC.
- All activities must be in compliance with relevant Livestock Codes of Practice and Standards and Guidelines
- Approvals given by the Principal or the Animal Ethics Committee may be subject to any conditions set down in the approval.
- Site visits may be conducted by member/s of the Animal Ethics Committee with prior consultation.

Dissection of Animals

All requests for dissection of animals require approval from the Animal Ethics Committee. No dissections should take place without prior approval.
The booklet *"Dissection of Animals in Schools"* is available for downloading from the website: https://edi.sa.edu.au/educating/programs-initiatives/animal-ethics
Contact the Executive Officer, the department's AEC for further information on telephone number 8463 5986.

Animal Use & Daily Health Record (AEC 101)

Health records should be kept by sites for the on-going monitoring of the health of the animal. Describe details of animal use (i.e. any intervention), preventative health treatments and health monitoring including observing for signs of ill-health, checking feed, water and environmental conditions.
This record **must** be retained by sites and be available during site visits by the AEC.

Adverse Incidents

If there is an unexpected / adverse incident involving any animals on a site regardless of category it must be reported to the department's AEC immediately on the appropriate form *Illness/Injury, Death or Unexpected Incident Report*" AEC 102 (Appendix 2). A copy *of Animal Use & Daily Health Record (AEC101)* should also be submitted.

Macropods

The keeping of Macropods on sites requires approval from the Animal Ethics Committee. Application form AEC 125 needs to be completed. The form is available on the AEC website:
https://edi.sa.edu.au/educating/programs-initiatives/animal-ethics
Approval is granted for 1 year.

Information Sheets

The following Information Sheets are available for downloading from the website:
https://edi.sa.edu.au/educating/programs-initiatives/animal-ethics

Information Sheet
Animal Donations to Sites
Animal Ethics Focus Person
Avian Influenza
Cane Toads
Chicken Coops
Dogs
Emergencies
Equine Influenza
Frogs / Tadpoles; Guidelines for collecting…
Finding a Bird
Handling Animals
Heat Stress
Rescuing and Releasing Native Animals
Security
Short Term Care of Animals
Snake Season
Two Can be better than one
Weekend and Holiday Care

Supporting information

The Animal Welfare Regulations contain a schedule of the Codes of practice which apply to livestock, pets and to those people who own or manage them. The Codes cover the minimum husbandry requirements of livestock species such as; basic welfare needs, intensive stocking systems, handling, mustering and yarding, management practices, health, feral stock control, humane destruction. Compliance with the standards of these Codes is mandatory. These are also available from: https://www.environment.sa.gov.au

Australian Veterinary Association

Department for Environment and Water (DEW)

DEW Fauna Permit Unit

AEC 100 - Application form for categories 4 and 5 activities or non listed activities

AEC 101 - Animal Use Daily Health Record

AEC 102 - Illness/Injury, Death or Unexpected Incident Report form

AEC 110 – Annual report form

AEC 125 application to keep native animals on-site

AEC 120 – application for experiments / dissections

AEC 130 – Holiday care form

Related legislation

Animal Welfare Act 1985

Animal Welfare Regulations 2012

Australian Code of Practice for the Care and Use of Animals for Scientific Purposes 8th edition 2013 -

National Parks and Wildlife Act 1972

National Parks and Wildlife (Wildlife) Regulations 2019

Livestock Act 1997

Related policy documents

Safety management procedure

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Contact

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AEC STANDARD OPERATING PROCEDURES

SOP No:	**01**
SOP	**Alpacas**
Scientific Name:	**Lama pacos**
Category:	**2, 3, 4, 5**
Approval Level:	**Category 2: School Principal may delegate** Activities requiring Category 2 approval - Mustering, drafting (in crush or bailhead), capture, restraint and handling of non-free-living domesticated animals (grooming or holding an animal, collecting a milk sample, non-invasive measurements, leading or riding an appropriately trained animal). - Observation of particular animal behaviours, e.g. oestrus, parturition - School performance by outside agencies that have animals as part of their exhibits - Organisations bringing animals to school (such as Delta Society programs, RSPCA or AVA PetPep). - Breeding of mice or other appropriate animal in the classroom. - Non-invasive measurement of body weight, body condition by visual assessment or condition scoring, growth, body proportions, pulse or blood flow, respiration, skin temperature (non-invasive), age by dentition, scrotum and testicles (palpation). - Familiarisation activities. - Administering water as a treatment. - Collection of wool, milk, faeces or urine samples (non-invasive). - Administering a topical treatment to the udder. - Coat care and grooming. - Tail tagging. - Animals on loan from the Nature Education Centre. (Note : the NEC will report directly to the Animal Ethics Committee on the number of animals loaned so schools should not include them in their returns) **Category 3: School Principal may <u>NOT</u> delegate** Activities requiring Category 3 approval - Category 3 comprises many routine techniques but none which requires the breaking of skin or any blood loss (e.g. blood samples, ear tagging etc). - Non-invasive measurement of body condition by ultrasound - Measurement of mild dietary effects (provided the normal nutritional needs for the life stage of the animals are met), high/normal protein, high/normal energy, high/normal fat, palatability - Taming/gentling. - Training for competition or showing. - Tethering animals. - Collection of saliva. - Measurement of body temperature (invasive). - Administering topical treatment by backline, spray or dip. - Administering drench or capsules orally. - Administering injections into the udder. - Coat clipping. - Loading and unloading animals onto transporters. - Showing animals at school and away. - Foot bathing. - Flystrike treatment. - Jetting animals. - Using sire harnesses. - Restraining with ropes. - Pregnancy detection by external ultrasound. **Category 4: Animal Ethics Committee approval is required** Activities requiring Category 4 approval - Category 4 comprises many routine husbandry techniques which have the potential to be painful or distressing to the animal. - Administering intraruminal, subcutaneous or intramuscular injections. - Administering winged capsules orally. - Administering intravenous injections or intrauterine pessaries. - Tattoo application.

	Shearing of alpacas and llamas. Crutching. Oestrus synchronisation. Microchip tagging. Commercial activities(for example growing turkeys for commercial sale)
	Category 5: Animal Ethics Committee approval is required Activities requiring Category 5 approval - Category 5 comprises many husbandry techniques which have the potential to be painful or distressing to the animal and require a level of expertise or supervision to ensure that adverse events do not occur. Collection of faeces, ruminal fluid or blood (invasive). Artificial insemination. Semen collection.
Authority:	**Government Schools** – Department for Education Animal Ethics Committee **Independent and Catholic Schools** - Non Government Schools Animal Ethics Committee
Authority Approval Date:	1 August 2010

Disclaimer:	*This document may be updated at any time. You should check the web site regularly to ensure that you are meeting the most recent recommendations. If you note any concerns with the information provided (inadequate, incorrect) please contact the relevant AEC (Refer to bottom of Standard Operating Procedure).*
Licensing Requirement:	Not applicable
Compliance Requirement:	The keeping of this species requires approval from the School Principal or the AEC. It is recommended that this Standard Operating Procedure be followed as a minimum in the provision of appropriate care and housing for this species.

General Information:	Varietal range differences - Alpacas are a member of the Camelid group. In Australia, there are two types: the Huacaya and the Suri. The former is the more common. It has a soft bonnet of fibre on the forehead and 'mutton-chops' on its cheeks. The body fibre grows straight out from the body and is not unlike Merino fleece. Suri alpacas are covered in long, pencil-fine locks, similar to dreadlocks. The fleece has lustre and feels more slippery and silky than that of the Huacaya. Alpacas begin life as Crias. They grow into Tuis (adolescents) and then Hembras (adult females) and Machos (adult males).
Physical Attributes:	• **Size:** 78 cm-104 cm at the withers • **Weight:** 47 kg- 80kg • **Age at adult size**: 2-3 years • **Average life span:** 15-25 years • **Weight at birth:** 5 kg-10kg • **Gestation period:** 335 days (range 11-12 months) • **Number of offspring:** 1 (twinning extremely rare) • **Sexual maturity:** females, 12-24 months; males, 18-24 months • **Weaning age:** 6-8 months • **Body temperature:** 38ºC • **Heart rate:** 60-100 beats/minute • **Respiration rate:** 20-30 breaths/minute
Behaviour:	Alpacas are normally alert and inquisitive. They move together when herded. They groom themselves by having regular dust baths and scratching on posts or bushes. The herd will have a community dung pile and, if necessary, animals will even line up and wait for their turn. Alpacas chew their cud, usually while lying down early in the morning. They will sprawl out and sun themselves, especially after periods of rain, and will wade in creeks, dams or even water troughs to cool down. Alpacas can swim. Alpacas are herd animals and need the company of other alpacas. A minimum of two animals should be kept.

Environment:	Alpacas may be kept in extensive situations with carrying capacities similar to those for large sheep. Alpacas need to run and need room for a dust bath. Access to shade at all times is essential and sprinklers may be provided on very hot days to allow the animals to cool down. Alpacas prefer shelters that allow them to see out. Sheep fencing to a height of 1 200 mm is adequate to keep alpacas penned. Do not use barbed wire. Alpacas rarely test fences but, if they are confined and stressed, they will jump easily over 1 000 mm pens, particularly if they are confined without companions. For this reason, it is always advisable to take them to shows and displays in pairs.

	Alpacas can survive harsh conditions but are susceptible to heat stress. They should be provided with access to shade and sprinklers in very hot weather. They rarely seek shelter from rain but usually lie down with their legs tucked underneath them. Cria and freshly-shorn alpacas need protection from the cold. Because of problems of fleece contamination, bedding for penned animals should be made from woven or slatted rubber matting rather than straw. If straw is used, ensure that it is free from seeds, as it is very difficult to remove them from the fleece. Alpacas avoid defecating in their pens unless they are confined for long periods. They usually wait until they can get to the dung pile.
Feeding:	Although they are slightly heavier than sheep, alpacas are more efficient feed converters, so they require a similar amount of feed. A maintenance diet is about 1.5 per cent of body weight each day on a dry-weight basis. The additional energy and nutrition needs of lactating alpacas increase the daily requirement to 3-4 per cent. Supplementary feeding may be necessary if insufficient grazing is available on pastures. Alpaca can have their diets supplemented with a stud mix, lucerne hay or alpaca pellets. Seek advice from the department of Agriculture for correct feeding, pasture quality and supplementation.
Breeding:	
Handling:	Alpacas need to be handled calmly and with care to prevent distress and injury to the animals and their handlers. When working with alpacas, consistently quiet and slow behaviour makes them very easy to handle and they usually herd easily. Alpacas learn quickly and will learn to come up to a feeding pen when called. They need to be shorn yearly, generally around September-October.
Hygiene:	
Disease prevention:	Disease control methods and internal and external parasite control programs should be developed in consultation with veterinarians or the department of Agriculture. All actions should be documented in the appropriate records.
Signs of illness:	Alpacas' health should be monitored daily or even more often. The first sign noticed is often a change in their natural demeanour. They may be listless or lethargic and closer examination may show variations in: • body temperature; • gastrointestinal function, e.g. diarrhoea, weight loss, loss or change of appetite; • regular dust-bathing habits or bathing in unusual places; • urogenital function, such as abortion, infertility or abnormal discharges; or • respiratory function, e.g. persistent coughing, gasping or panting. There may be evidence of: • skin condition such as lesions or abnormal growths • tucked-up appearance, stiff gait, abnormal posture, patchy coat or loss of hair • excessive scratching or rubbing or • swollen joints or lameness A failure to thrive or grow is another sign of illness.
Treatments:	If it is not possible to identify and correct the cause of ill-health, assistance from veterinarians familiar with alpacas should be sought. Illnesses, injuries and treatments given must be documented in the appropriate records. Treatments must be documented in the appropriate records.
Euthanasia:	In the case of an alpaca becoming so sick, diseased or injured that recovery is unlikely or undesirable, on humane grounds euthanasia must be arranged with a veterinarian or a person competent in the technique for alpacas. Any death must be reported to the Animal Ethics Committee using the appropriate form (see section relating to ADVERSE EVENTS). Forms are available on the relevant websites – see contact details below.
Disposal/fate planning:	Alpacas can be sold privately or at auction. They must not be released into the wild. Carcasses must be disposed of in accordance with local council regulations.
Holiday and weekend care:	Alpacas need to be monitored, checked and fed regularly over weekends and holiday periods.
Approved activities:	Observation, breeding and farming.

Resources:	
Websites:	www.aahc.com.au www.alpaca.asn.au www.pir.sa.gov.au
Texts:	Bravo, W. (1995). *Female Reproduction, Cria to Criation*. Mitcham, Victoria. International Alpaca Industry Seminar Proceedings, Australian Alpaca Association. Coleby, P. (2000). *Natural Goat and Alpaca Care*. Collingwood, Victoria: CSIRO Publishing. Hoffman, E. and Fowler, M. (1995). *The Alpaca Book*. Herald, California: Clay Press. Pigot, R. (1996). *Practical Alpaca Nutrition*. Mitcham, Victoria. International Alpaca Industry Seminar Proceedings, Australian Alpaca Association.
Contact:	**Department for Education Animal Ethics Committee** https://edi.sa.edu.au/educating/programs-initiatives/animal-ethics Phone: 8463 5986 Email: education.animalethics@sa.gov.au

AEC STANDARD OPERATING PROCEDURES

SOP No:	**02**
SOP	**Aquaculture**
Scientific Name:	***Varies***
Category:	**4**
Approval Level:	**Category 4: Animal Ethics Committee approval is required** Activities requiring Category 4 approval - Category 4 comprises many routine husbandry techniques which have the potential to be painful or distressing to the animal. • Aquaculture and related enterprises • Commercial activities(for example growing turkeys for commercial sale)
Authority:	**Government Schools** – Department of Education and Child Development Animal Ethics Committee **Independent and Catholic Schools** - Non Government Schools Animal Ethics Committee
Authority Approval Date:	1 August 2010

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Licensing Requirement:	May be required – check with the department of Primary Industries and Resources South Australia (PIRSA) – Fisheries.
Compliance Requirement:	The keeping of this species requires approval from the AEC. It is recommended that this Standard Operating Procedure be followed as a minimum in the provision of appropriate care and housing for this species.

General Information:	Aquaculture is the commercial farming of fish, molluscs, crustaceans and aquatic plants, in natural or controlled marine or freshwater environments. Aquaculture will grow in importance as pressure increases on wild fisheries. At present the industry is dominated by oyster farming with prawn farming also making a valuable contribution. There are various species of fish that are suitable for using in a schools' aquaculture enterprise. Care should be taken to ensure that species that are most appropriate to the school environment are selected. Characteristics that need to be considered in the selection of species for a school-based aquaculture enterprise include: • Ability to thrive in captivity • Suitable behaviour such as schooling and swimming near the water surface • Capable of rapid and uniform growth • Amenable to artificial feeding • Efficient food conversion • Non-cannibalistic • Disease resistant • Hardy • High meat recovery • Marketability. **Aquaculture permits:** A person/ site must not carry on aquaculture except as authorised by an aquaculture licence granted by the Minister. An aquaculture permit is required whether fish are grown for human consumption, or used in the aquarium trade, for sale to other fish farmers or sale of fish for stocking farm dams or waterways. An aquaculture permit is not needed where a proponent keeps fish in a pet shop for sale or in an aquarium for exhibition, or where fish are maintained for non-commercial purposes, e.g. stocking a farm dam with fish for personal recreation use or consumption. More information about aquaculture permits can be found through the Primary Industries and Resources SA. http://www.pir.sa.gov.au/aquaculture
Physical Attributes:	
Behaviour:	Varies with species and therefore other references will need to be consulted for the type of fish you plan to keep.
Environment:	All facilities used to house fish must be operated in a manner that optimises conditions for the particular fish species. Suitable facilities for holding fish include ponds,

raceways, tanks, cages and aquaria.

All facilities should be aerated. Tanks and aquaria should be aerated continuously with diffused air and ponds with mechanical aerators such as paddlewheels for around 8 hours/day.

In circular, self-cleaning tanks, a constant flow of water must be used to facilitate the removal of solids and dissolved wastes, e.g. ammonia to supplement aeration. If tanks need to be static, e.g. during chemical treatment, fish should not be fed and water (10–30%) should be exchanged daily.

- **Space:** The stocking density for fish is dependent on the prevailing water quality, the size of the fish, the temperature of the water and the oxygen supply. Table 1 lists the optimum stocking density for each of the housingtypes.

  Table 1

Housing type	Optimum stocking density
Tank	10 kg/m^3
Cage	20 kg/m^3
Pond	20 t/ha

- **Covers or shelter for tanks:** Tanks should be placed undercover or in a building out of direct sunlight to provide an environment with relatively low light intensity. During winter months the need to heat individual tanks can be avoided by keeping tanks in a closed environment where the air temperature of the room can be maintained. Heating should be used before the water temperature drops. This reduces the amount of heating required and saves power and money.
- **Water quality:** Maintenance of good water quality is the most important aspect of fish husbandry. Maintenance of good water quality requires the regular monitoring of temperature, dissolved oxygen, pH and ammonia, and for marine and brackish water species, salinity.
- **Temperature:** Fish are *ectotherms* because heat is obtained from outside the animal unlike *endotherms* (e.g. mammals) that generate their own body heat. Usually, the body temperature of ectotherms is close to that of their surroundings; they are often described as *poikilothermic* (having variable temperature). Temperature affects all chemical and biological processes. The metabolic rate of fish doubles for every rise of 10°C. Therefore, temperature has a direct effect on important factors such as growth, oxygen demand, food requirements and food conversion efficiency. The higher the temperature, the greater the requirement for oxygen and food and the faster the growth rate. Temperature partly determines the concentration of oxygen in water. The solubility of oxygen decreases with increasing temperature, and so concentrations are usually lower in summer. Silver perch have a temperature tolerance range of 2 to 38°C with optimum growth occurring between 23 and 28°C. During winter when water temperatures are lower, silver perch will require less food and have a slower growth rate. At temperatures below 10°C the fish may enter a state of torpor, with greatly reduced appetite and activity. As the water temperature increases in spring and summer, the fish will require a larger quantity of food due to the increase in their metabolic rate. If the temperature is to exceed the critical level for a particular species, fish may become stressed, more vulnerable to disease, stop growing and can die.
- **Dissolved oxygen:** Dissolved oxygen is the most critical and limiting variable in fish husbandry and culture. Like all animals, fish cannot live without oxygen. Although fish can survive at levels of 4 mg/L, they may suffer stress, reduced growth and increased susceptibility to disease. Oxygen enters water through diffusion at the air-water interface and as a result of photosynthesis when there are plants in the water. For aquaria, tanks and raceways, dissolved oxygen is usually supplied through low pressure compressors or blowers (through diffusers like air stones). In ponds, paddle-wheel aerators are among the most efficient methods of transferring oxygen from the air to the water. This also helps with mixing water throughout the pond.
- **Salinity:** Salinity refers to the total concentrate of all dissolved ions. Many Australian native fish tolerate a wide range in salinity, with freshwater species coping with up to 5 g/L and many estuarine species coping with salinity as low as 10 g/L. Fish need to be given time to adjust to changing salinity.
- **Ph Level:** The desirable range for fish is around 6–9, depending on the species. A pH of 4 is lethal for most species while prolonged exposure to pH levels of above 10 is also lethal. Other variables that influence the water quality include alkalinity, hardness, turbidity and ammonium, nitrite, hydrogen sulphide and carbon dioxide levels.

	• **Water exchange:** Poor water quality can result from inadequate water exchange. Water exchange can be achieved through:
	  ○ Partial draining of the pond or tank and then replacing the lost water.
	  ○ Flow-through systems with the pond, tank or raceway remaining full through water entering and leaving the system at the same time from different locations.
	  ○ Recirculating systems.
	• **Filtration:** The maintenance of water quality in tanks and aquariums can be assisted through a filtration system. The different types of filtration include:
	  ○ mechanical
	  ○ chemical
	  ○ biological.
	• **Cleaning:** Tanks should be cleaned regularly, by siphon or vacuum pump, to reduce problems with the accumulation of organic matter (uneaten food, faeces) and fouling organisms, bacteria and algae. Filters need to be backwashed regularly to prevent build up and decomposition of accumulating waste material. Floors and drains associated with tank rooms should be cleaned and sterilised on a regular basis. Dilute pool chlorine or sodium hypochlorite (NaOCl 20 ppm) or caustic soda (NaOH 1%) are suitable cleaning agents for this purpose.

Feeding:	• **Type:** Commercial diets are available from a number of feed manufacturers for marine and freshwater fish including diets for larvae, juveniles and adults. The commercial diet used should be designed for the target species, life-stage and size. Commercial fish diets should be stored for as short a time as possible before use and kept cool and dry. If the diets are to be stored for longer than one month they should be kept in cool (<15ºC), dry conditions or frozen. Silver perch are often fed fresh or frozen bait fish or aquatic plant material. This food needs to be stored frozen and care must be taken to ensure it is not contaminated and does not deteriorate. • **Quantity and regularity:** Fish should be fed to optimise survival and growth. Each species should be fed appropriately. If fish are not feeding vigorously, excess feeding can adversely affect water quality. At such times feeding should be reduced or suspended until conditions improve.
Breeding:	
Handling:	Fish must not be handled. A suitable net should be used to capture the fish.
Hygiene:	
Signs of illness:	Signs of illness include skin lesions such as spots, fin erosion, gross colonies of bacteria, ulcers or growths, floating, listing, swelling of the body cavity and swimming upside down.
Treatments:	
Euthanasia or human killing:	Where fish become so sick, diseased or injured that recovery is unlikely or undesirable on humane grounds, euthanasia should be carried out. The preferred method of euthanasia is by a firm tap on the head with a suitable blunt object followed by rapid severing of the spinal chord. Any death must be reported to the Animal Ethics Committee using the appropriate form (see section relating to ADVERSE EVENTS). Forms are available on the relevant websites – see contact details below.
Disposal/fate planning:	Fish must not be released into natural waterways unless the site has an appropriate licence.
Holiday and weekend care:	As they require specific conditions – ph, salinity, water levels, feeding frequencies they need to be checked and fed regularly over weekends and holiday periods. Special care must be taken at times of extreme heat as heating of the water can kill fish on mass. Extra checking is required at these times.
Approved activities:	Observation, breeding, farming
Websites:	www.pir.sa.gov.au www.sardi.sa.gov.au
Texts:	Grant, E.M. (2002) *Grant's Guide To Fishes*, E.M. Grant Pty Limited, Brisbane. Hollaway, M. and Hamlyn, A. (2001) *Freshwater Fishing in Queensland: a guide to stocked waters,* Department of Primary Industries, Brisbane. Merrick, J.R. and Schmida G.E. (1984) *Australian Freshwater Fishes: Biology and*

	Management, Griffin Press Limited, South Australia. Department of Primary Industries (2002) *Fish Guide. Saltwater, Freshwater and Noxious Species,* The Great Outdoors Publications, Brisbane. McDowall, R. (1996) *Freshwater Fishes of South-Eastern Australia,* Reed Books, NSW. Bryant, C. and Rowland, S.J. (1994) *Silver Perch Culture: Proceedings of Silver Perch Aquaculture Workshops,* NSW Fisheries.
Information:	Fishwatch SA 1800 065 522
Contact:	**Department for Education Animal Ethics Committee** https://edi.sa.edu.au/educating/programs-initiatives/animal-ethics Phone: 8463 5986 Email: education.animalethics@sa.gov.au

*Part of the above information has kindly been sourced from the NSW Animal Ethics Committee
https://my.education.nsw.gov.au/policy-library/policies/pd-2004-0029

AEC STANDARD OPERATING PROCEDURES

SOP No:	**03**
SOP	**Axolotls**
Scientific Name:	*Ambystoma mexicanum*
Category:	**2 or 3**
Approval Level:	**Category 2: School Principal may delegate** Activities requiring Category 2 approval - Observation of particular animal behaviours, e.g. oestrus, parturition - School performance by outside agencies that have animals as part of their exhibits - Organisations bringing animals to school (such as Delta Society programs, RSPCA or PetPep). - Breeding of mice or other appropriate animal in the classroom. - The appropriate care of classroom pets. - Non-invasive measurement of body weight, body condition by visual assessment or condition scoring, growth, body proportions, pulse or blood flow, respiration, skin temperature (non-invasive), age by dentition, scrotum and testicles (palpation). - Familiarisation activities. - Collection of wool, milk, faeces or urine samples (non-invasive). - Animals on loan from the Nature Education Centre. (Note : the NEC will report directly to the Animal Ethics Committee on the number of animals loaned so schools should not include them in their returns) **Category 3: School Principal may <u>NOT</u> delegate** Activities requiring Category 3 approval - Category 3 comprises many routine techniques but none which requires the breaking of skin or any blood loss (e.g. blood samples, ear tagging etc). - Measurement of mild dietary effects (provided the normal nutritional needs for the life stage of the animals are met), high/normal protein, high/normal energy, high/normal fat, palatability
Authority:	**Government Schools** – Department of Education and Child Development Animal Ethics Committee **Independent and Catholic Schools** - Non Government Schools Animal Ethics Committee (NGSAEC)
Authority Approval Date:	1 August 2010

Disclaimer:	*This document may be updated at any time. You should check the web site regularly to ensure that you are meeting the most recent recommendations. If you note any concerns with the information provided (inadequate, incorrect) please contact the relevant AEC (Refer to bottom of Standard Operating Procedure).*
Licensing Requirement:	Not applicable
Compliance Requirement:	The keeping of this species requires approval from the School Principal. It is recommended that this Standard Operating Procedure be followed as a minimum in the provision of appropriate care and housing for this species.

General Information:	An axolotl is the 'tadpole' (larval) stage of a salamander (a land dwelling amphibian) found in two lakes near Mexico City. It is named after the Aztec God, XOLOTL and is part of the staple diet of natives of Mexico, being sold in markets like chickens are here—alive or roasted! It rarely changes into a terrestrial adult. It makes a fascinating pet, which readily lives in captivity for up to 10 years. They are available in a range of colours including nearly black, albino, golden or pied. They are an aquatic amphibian.
Physical Attributes:	• **Size (adult):** 20-30cm in length • **Weight (adult):** 300gms • **Life span:** 12-15 years • **Sexual maturity:** At one year • **Gestation period:** Axolotls lay their eggs onto plant material one day after indirect fertilisation. The male releases spermatophore into the water, which the females take into their body indirectly. The eggs hatch after 2-3 weeks and will remain attached to the plant material for another 2-3 weeks. • **Number of offspring:** 300-1,000 eggs
Behaviour:	• **Normal:** Axolotls should NOT be placed with other species in aquariums. They are nocturnal and therefore more active during the night. • **Socialisation:** They can be cannibalistic when different sizes are grouped together or if they are underfed.

	• **Activity levels (hibernation etc):** They will be slow and sluggish during the day and tend to rest away from the light. Sudden movements and noises near a tank may startle the axolotl and cause it to panic and injure itself.
Environment:	• **Space:** You will need a large aquarium (30 litres of water for 1 axolotl adding 10 litres for each additional axolotl). Set up your aquarium as you would for fish with aerator, filters, pond weed etc, smooth pebbles and a rock for hiding beneath. An aquarium 60cm x 30cm x 30cm will house two adult axolotls. Keep the depth to about 20-25cm. Be careful not to have very small gravel as axolotl may eat it. • **Movement:** Axolotls have long tails and four legs. They have feathery gills on either side of their head. They can regenerate body parts including their gills, limbs and tails. They need to be able to move freely and turn around freely in the aquarium. They appear clumsy and uproot plants readily but can move with surprising speed. • **Water:** Do not use soft or distilled water. Remove chlorines, chloramines or ammonia. Use commercial preparations for this purpose to keep the pH level between 6.5 and 8.0. They must remain moist so that they can breathe. • **Temperature:** Axolotls thrive in cool temperatures – between 15-18°C. Water temperature should not exceed 25°C. Aquariums should not be exposed to direct sunlight. Where heat waves occur and cooling is difficult to maintain drape a wet towels over the tank with the end of the towels in water pots and a fan blowing on the wet towel. • **Filtration:** Essential for providing the axolotls with oxygen. The rate of circulation should be slow. • **Lighting:** Axolotls thrive in dim light. Normal indoor lighting is sufficient and no tank lights are required. Where pond plants need a light a darker area of the tank must be provided. Their eyes have no eyelids and they are sensitive to light. • **Covering:** Where the axolotls are at risk from younger children or where the water is closer than 10cm to the top of the aquarium a mesh covering over the aquarium should be provided. DO NOT spray chemicals neartanks. • **Shelter:** The aquarium should provide an area for refuge from lights, action and other axolotls. This can be created with plants and rocky overhangs. • **Cleaning:** it is recommended that conditioned water of the same temperature be used to replace approx 25% of the water each week. Regular removal of solid waste is required. To clean the whole tank use a scour pad dipped in a 2:1 mixture of baking powder and salt. Rinse the tank carefully and fill again with conditioned water. Bacterial scum growing on the tank must be removed regularly as it causes skin problems and toeloss.
Feeding:	• **Diet:** Axolotls are carnivorous and normally eat insects, crustaceans, earth-worms, tadpoles, small fish etc., but they can be taught to eat 20mm x 5mm strips of uncooked beef, fish, chicken or lamb heart so long as they are waved about in front of them to entice them. They readily learn to come to the top of the tank and take the meat when feeding is regular. The diet must be varied NOT just heart or liver. Juveniles will eat brine shrimp, tubifex worms, water fleas and small insects. • **Daily requirements:** The ideal temperatures are 14-18oC and at these temperatures axolotls need to be fed 2-3 times a week (daily when near breeding time). Continue feeding each animal until it loses interest (up to an hour). They normally feed late in the evening. Juveniles need feeding more often. Feed using blunt nosed tweezers or straws. • **Supplementary feeding:** A varied diet is best. Pellets for carnivorous fish (soft) are also acceptable. A diet consisting only of meat will be deficient in vitamins and minerals and cause health problems. • **Equipment:** Remove wastes from the tank each day after feeding and at the same time about 5% of the water. Blunt nosed tweezers.
Breeding:	• **Mating:** The male releases spermatophore into the water, which thefemales take into their body indirectly. • **Pregnancy:** Axolotls lay their eggs onto plant material one day after indirect fertilisation. • **Fate planning:** Breeding stock must be re homed. As an introduced species they must NEVER be released into the environment orwaterways.
Handling:	• **Human:** Axolotls should not be handled or kept out of the water. This damages their skin and exposes them to increased risk of bacterial or fungal infections. • **Equipment:** An aquarium net should be used for capture or moving axolotls. • **Transporting:** Axolotls should be transported in watertight clear plastic bags,

	half water and half air. Transport quickly and do not leave unattended or allow the axolotl to heat. • **Children:** Should not handle axolotls. Observation only. Ensure children do not knock on the tanks.
Hygiene:	The wastewater from tank cleaning must not be discarded into the storm water drains or septic tank systems. It may be placed on gardens or it must be treated with 1:5 ratio of bleach to water and be poured into the toilet. Thoroughly wash hands with soap and running water for at least 10-15 seconds after working or handling any animals. Dry hands with clean paper, cloth towel or air dryer. Turn off the tap with the paper towel if possible.
Signs of illness:	• **Indicators:** loss of appetite, deterioration of the gills, skin lesions, jaundice, poor swimming balance, loss of toes, injuries, failure to thrive.
Treatments:	Assistance from a veterinarian should be sought for confirmation of conditions and treatment options. Many aquarium treatments are not suitable for axolotls and may cause further distress or death.
Euthanasia:	When an illness or injury is such that recovery is unlikely then the animal must be euthanased by a veterinarian Any death must be reported to the Animal Ethics Committee using the appropriate form (see section relating to ADVERSE EVENTS). Forms are available on the relevant websites – see contact details below.
Disposal/fate planning:	When no longer required axolotls must be re homed. As an introduced species they must NEVER be released into the environment or waterways. Bodies must be disposed of correctly in accordance with local council regulations.
Holiday and weekend care:	As they require specific conditions they would not cope well with being rostered to family carers. They need to be checked and fed regularly over weekends and holiday periods.
Approved activities:	Observation
Resources:	
Websites:	www.axolotl.org
Texts:	Indiviglio, F. (1997) *Newts and Salamanders: A Complete Pet Owner's Manual*. New York. Barron's Pet Hardbooks. Gray, A. (2000) *Keeping Amphibians* Harper Collins Publishers. Heathcote, P. (2004) *Keeping unusual pets – Salamanders* Reed Educational and Professional Publishing.
Contact:	**Department for Education Animal Ethics Committee** https://edi.sa.edu.au/educating/programs-initiatives/animal-ethics Phone: 8463 5986 Email: education.animalethics@sa.gov.au

AEC STANDARD OPERATING PROCEDURES

SOP No:	**04**
SOP	**Budgerigars and caged birds**
Scientific Name:	**Varies**
Category:	**2 or 3**
Approval Level:	**Category 2: School Principal may delegate** Activities requiring Category 2 approval - Observation of particular animal behaviours, e.g. oestrus, parturition - School performance by outside agencies that have animals as part of their exhibits - Organisations bringing animals to school (such as Delta Society programs, RSPCA or PetPep). - Breeding of mice or other appropriate animal in the classroom. - The appropriate care of classroom pets. - Non-invasive measurement of body weight, body condition by visual assessment or condition scoring, growth, body proportions, pulse or blood flow, respiration, skin temperature (non-invasive), age by dentition, scrotum and testicles (palpation). - Familiarisation activities. - Administering water as a treatment. - Collection of wool, milk, faeces or urine samples (non-invasive). - Animals on loan from the Nature Education Centre. (Note : the NEC will report directly to the Animal Ethics Committee on the number of animals loaned so schools should not include them in their returns) **Category 3: School Principal may <u>NOT</u> delegate** Activities requiring Category 3 approval - Category 3 comprises many routine techniques but none which requires the breaking of skin or any blood loss (e.g. blood samples, ear tagging etc). - Non-invasive measurement of body condition by ultrasound - Measurement of mild dietary effects (provided the normal nutritional needs for the life stage of the animals are met), high/normal protein, high/normal energy, high/normal fat, palatability - Taming/gentling. - Training for competition or showing. - Measurement of body temperature (invasive). - Showing animals at school and away.
Authority:	**Government Schools** – Department for Education Animal Ethics Committee **Independent and Catholic Schools** - Non Government Schools Animal Ethics Committee (NGSAEC)
Authority Approval Date:	1 August 2010

Disclaimer:	*This document may be updated at any time. You should check the web site regularly to ensure that you are meeting the most recent recommendations. If you note any concerns with the information provided (inadequate, incorrect) please contact the relevant AEC (Refer to bottom of Standard Operating Procedure).*
Licensing Requirement:	Not applicable
Compliance Requirement:	The keeping of this species requires approval from the School Principal. It is recommended that this Standard Operating Procedure be followed as a minimum in the provision of appropriate care and housing for this species.

General Information:	Caged birds may include Budgerigars (*Melopsittacus undulatus*), Zebra Finches (*Taeniopygia guttata*), Canaries (*Serinus canaria*). No bird should be taken from the wild and kept as a pet. Check with Department of Environment and Heritage for permit requirements on species of birds other than the species discussed in this Species Fact Sheet. • **Budgerigars (budgie)** – small nomadic parrots native to Australia in inland areas of acacia scrub, tussock grassland, spinifex country, eucalypt woodland. Congregate in large numbers. In the wild the most common colour is green. Domestic colours include white, yellow, blue and mixtures. They are very adaptable birds and popular as pets all over the world. Both sexes appear the same apart from the cere around the nostrils. Adult males have a blue cere while females have a brown one. Average height 18 cms. • **Zebra Finches** – most common Australian finch found in a wide range of habitats including spinifex, mulga, grassland, grassy woodlands, saltbush, saltmarsh and farms, parks and gardens. They are always near water sources. They gather in large flocks. Often spotted hopping along the ground in search of

	seeds. Thick short beaks assist with seed gathering. They are robust and easy to keep in a cage or aviary. Males have coloured flanks and orange cheek patches. Both sexes have distinguishing facial streaks a white rump and a barred tail. Average height 10 cms. • **Canaries -** The canary is a type of finch that is native to the Canary Islands. In the wild the canary is brownish green and looks like a sparrow. Canaries have been popular pets since Spanish sailors brought them to America from the Canary Islands in 1478. Today there are many breeds of pet canary. The male birds of the German Roller and the American Singer breeds are famous for their singing. Average height is 10 cms.
Physical Attributes:	• **Size (adult):** Varies according to the species. • **Weight (adult):** Varies according to the species. • **Life span:** Varies according to the species. • **Gestation period:** Incubate the eggs for 18 days. Young leave after 30 days. • **Number of offspring:** Average 1-2 eggs, but can be 4 or more.
Behaviour:	• **Normal:** Birds are normally alert with an erect carriage. They enjoy being able to explore on the ground and be up high in their cage/aviary, they enjoy being able to fly freely. It is not normal for them to have clipped wings and this should not be done unless under the direction of a veterinarian. • **Socialisation:** They are normally flock birds and so enjoy having the company of at least one other bird. • **Activity levels (hibernation etc):** They will be active throughout the day.
Environment:	• **Space:** You will need a large cage or aviary that provides for the physical characteristics and behaviours of the bird species. Indoor birds can be kept in cages that allow for free movement. Outside birds can be kept in aviaries. **Cages should have;** o Minimum sq cm of floor space of 1000cm for one finch or canary and 1600cm for one budgerigar. o Provide an additional 500cm² for each extra finch or canary and 800cm² for each extra budgerigar o Minimum height of 34cm o Removable trays for easy cleaning o Bars that prevent entrapment of the birds head. o Perches made from a variety of thicknesses of natural twigs and sticks. Do not use commercial plastic single sized perches. Natural varied perches assist with keeping feet free from infections and sores and keeping nails shorter. Avoid sandpaper covered perches as these can damage the bird's feet. o Protection from weather, draughts and predators. o Feed and water stations to allow easy access for each bird. o Hanging items – bells, mirrors, swings etc should not clutter the cage and restrict movement. o Access doors for the bird and feed items that allow easy movement from the outside to inside without risk of harm to the bird. o Absorbent paper on the base for easy daily cleaning. o Security measures (locks). **Aviaries should have;** o A solid construction incorporating rectangular, square or circular shapes. o A minimum space of 4:1 length and width, with the width not being narrower than 900cm. o No shorter distance than twice the wingspan of the largest bird kept. o A base that ensures predators cannot dig through ie sunken mesh sides, mesh floor or concrete floor with surface covering. o Some solid sides and open sides, with the solid sides against the prevailing weather. o Solid and open roofing depending on the location and normal weather conditions. o Shade covering – sarlon, shade cloth sail, trees. o Security measures (locks). o A choice of nesting and roosting sites. o Nesting materials available. o Perches made from a variety of thicknesses of natural twigs and sticks. Do not use commercial plastic single sized perches. Natural varied perches assist with keeping feet free from infections and sores and keeping nails shorter. o Protection from weather, draughts and predators. o Feed and water stations to allow easy access for each bird, not under

	perches as the become soiled. ○ Shallow bathing bowls. (avoids drowning!) ○ Hanging items – bells, mirrors, swings etc should not clutter the cage and restrict movement or impede flight. Natural swings can be made from a branch with holes drilled at either end and fine chain to hang it. ○ Two access doors for entry and exit to the aviary that allow easy movement without risk of escape by the birds. ○ Flooring (sand, grit, natural materials or dirt) that can be cleaned out fully at least twice a year. ○ Protection from the entry of predators and pests (mice and snakes will enter through very small holes/gaps). • **Movement:** Caged birds need to be able to move around freely – from perch to perch, up and down and around the cage. To stretch to their full height, to flutter, spread and wave its wings. Consider providing more than the minimum for their health and enjoyment. Aviary birds should also be able to move freely around and fly safely. • **Water:** Clean water must be available at all times. Birds like drinking water and water to clean and bathe in. In an aviary this can be a freestanding birdbath located away from perches. Keep water containers away from perches to stop bird droppings fouling the water. • **Temperature:** Birds in both cages and aviaries will become stressed in extreme hot and cold conditions. Cages should not be left standing in direct sunlight or placed next to windows or glass doors. Aviaries should have protection from weather. Ensure cages are not left in a draught, as birds will catch a cold. • **Lighting:** Normal indoor lighting is sufficient for caged birds. • **Covering:** All cages and aviaries must be fully enclosed and able to be secured (locked). Cages can be covered with a towel at night. Do not use plastic. Aviaries need part solid roofing and part wire roofing, with some solid sides against the prevailing weather. • **Shelter:** In an aviary this can be created with nesting boxes, hollow logs, trees and branches. In a cage a partially hung towel provides an area of respite. If cages are placed outside at times ensure they are placed up high as birds will stress low down with the threat of predators, ensure they are not left out on windy conditions that could blow them over, ensure children cannot knock the cage over. • **Cleaning:** Cages must be cleaned regularly. Perches should be cleaned or replaced regularly. Clean out water and seed containers daily. Remove a layer of soiled paper each day. Clean out the bottom of the cage each week. Aviaries should be cleaned out regularly of any uneaten greens. Also clean the water bowls and seed bowls daily.
Feeding:	• **Diet:** Adequate feed for the species kept and the number kept should be available daily. All birds on this fact sheet are seedeaters. Most also like the addition of greens. Ready made species blends can be obtained from supermarkets, fodder or pet stores. • **Daily requirements:** Ensure the seed pot is emptied and refilled daily. Remember that birds remove the outer husk and eat the seed. Do not assume there is a still lot left! • **Supplementary feeding:** Birds should have access to some form of calcium. Cuttlefish bone and eggshells from chickens are good sources. Note; egg shells must be microwaved for a few minuted to kill bacteria, cool before feeding to birds. Boiled chopped egg can be given to finches once a week to help with feather growth. Greens can include seed grasses, grass, lettuce, fruit, and green vegetables. Do not use cabbage. Commercial grit products are available and can be provided in small amounts as required. • **Equipment:** Water bottles, bowls, seed dispensers, pots.
Breeding:	• **Mating:** Birds may breed in aviary conditions where nesting opportunities occur. Females on their own can lay unfertilised eggs. • **Pregnancy:** • **Fate planning:** Breeding stock must be re homed. As an introduced or bred species they must NEVER be released into the environment.
Handling:	• **Human:** Birds should be handled as little as possible in aviaries. All birds need to be handled calmly and with care. Cage birds can be conditioned from a young age to be regularly handled. • **Equipment:** Soft nets can be used to catch birds. • **Transporting:** Birds can be transported in small boxes with air holes or small covered cages. Open uncovered cages may cause injury as the bird hits the wires in panic. Transport quickly and do not leave for long periods in heat or

	cold conditions. • **Children:** Should not handle birds. Observation only.
Hygiene:	Thoroughly wash hands with soap and running water for at least 10-15 seconds after working or handling any animals. Dry hands with clean paper, cloth towel or air dryer. Turn off the tap with the paper towel if possible. Ornithosis (also known as Psittacosis) is a bird contagious disease transmitted to humans as a form of pneumonia. Psittacine birds or potential carriers include budgerigars, parrots, parakeets, doves and pigeons. Regardless these birds can be kept on sites providing they are obtained from reputable sources, kept in clean cages and handled as little as possible. Particular care is needed when handling birds to avoid facial contact and inhalation of faecal dust. Staff and students involved in cleaning should wear a mask and where possible rather than creating dust from sweeping use wet cleaning ie wet the cage or aviary floor lightly first before removing the droppings.
Signs of illness:	• **Indicators:** changes in droppings, loss of appetite, changes in behaviour, body posture, unable to perch, loss of body weight, respiration problems, growths, bleeding, vomiting, discharges, injuries, failure to thrive, excessive scratching or crusted areas on face and legs (lice or mites). • **Indicators of stress include:** biting their claws, pulling out feathers, frantic behaviour. From time to time birds may need their toes clipped. This can be done with nail clippers but must not be done above the darker claw area or bleeding and infection can occur. Do not allow a bird's claws to curl around. Birds may seem off-colour when they are moulting. This normal 'feather replacement' process takes a few weeks and is very obvious by the number of feathers lying on the bottom of the cage. The bird's new pinfeathers will begin to show, particularly around the head. Birds need to do this because their feathers become very worn and lose their insulative quality. Try not to disturb birds during this time.
Treatments:	Assistance from a veterinarian should be sought for confirmation of conditions and treatment options.
Euthanasia:	When an illness or injury is such that recovery is unlikely then the animal must be euthanased by a veterinarian. Any death must be reported to the Animal Ethics Committee using the appropriate form (see section relating to ADVERSE EVENTS). Forms are available on the relevant websites – see contact details below.
Disposal/fate planning:	When no longer required birds must be re homed. As an introduced or bred species they must NEVER be released into the environment. Bodies must be disposed of correctly in accordance with local council regulations.
Holiday and weekend care:	Birds in cages generally cope with being rostered to responsible carers. They need to be checked and fed regularly over weekends and holiday periods if they remain on site or if they are housed in aviaries. Records must be kept of 'off site' care. Cages and feeding equipment and supplies must be provided to carers, with contact details for emergencies.
Approved activities:	Observation
Resources:	
Websites:	www.budgerigarsociety.com
Texts:	Milton, J and Lewis, J. (2000) *A Guide to Zebra Finches* Australian Birdkeeper. Martin, H-J. (2000) *Zebra Finches* Barrons Publishing. Vriends, M. Dr. (1997) *The Zebra Finch* Howell Book House. Fisher, R. (1997) *Guide to owning a Zebra Finch* T.F.H. Publication, Inc. Dodwell, G. (1986) *The Complete Book of Canaries* John Wiley and Sons Inc. Grindol, D (2000) *The Canary* John Wiley and Sons Inc. Thomas, R. and Stutchbury, J. (1993) *Canaries* Macmillan Education Australia. Alderton, D. (2002) *Budgerigar* Harper Collins Publishers. Viner, B. (1997) *All about your Budgerigar* Interpret Publishing. RSPCA (2005) *Caring for your Budgerigar* Harper Collins. Piers, H. (1993) *Looking after your Budgerigar* Frances Lincoln LTD GB. Evans, M. (1993) *ASPCA Pet Care Guides for Kids – Birds* DK Publishing.

	Early Macken, J. (2004) *Lets read about Budgerigars* Franklin Watts. Thomas, R. and Stutchbury, J. (1993) Budgerigars Macmillan Education Australia.
Contact:	**Department for Education Animal Ethics Committee** https://edi.sa.edu.au/educating/programs-initiatives/animal-ethics Phone: 8463 5986 Email: education.animalethics@sa.gov.au

AEC STANDARD OPERATING PROCEDURES

SOP No:	**05**
SOP	**Cattle**
Scientific Name:	***Bos Taurus,*** temperate cattle breeds, mainly found in southern areas of Australia. Some of the temperate cattle breeds are: Angus, Belted Galloway, Devon, Highland, Murray Grey, Poll Hereford, Red Angus, Shorthorn, South Devon, Blonde D'Aquitaine, Braunvieh, Charolais, Chianina, Gelbvieh, Limousin, Mandalong Special, Salers, Simmental. ***Bos indicus,*** tropical cattle breeds, found in northern areas of Australia. Some of the tropical cattle breeds are: Boran, Brahman, Red Sindhi, Sahiwal, Santa Gertrudis, Tuli, Belmont Red, Braford, Brangus, Charbray, Droughtmaster. **Varietal range difference:** Many different and distinct breeds exist. Cattle are usually divided into two groups: • Dairy cattle used for milk production, eg. Holstein, Jersey and Illawarra Shorthorn • Beef cattle used for meat production, eg. Hereford, Angus, Murray Grey and Brahman
Category:	**2, 3, 4, 5**
Approval Level:	**Category 2: School Principal may delegate** Activities requiring Category 2 approval - Mustering, drafting (in crush or bailhead), capture, restraint and handling of non-free-living domesticated animals (grooming or holding an animal, collecting a milk sample, non-invasive measurements, leading or riding an appropriately trained animal). - Observation of particular animal behaviours, e.g. oestrus, parturition - School performance by outside agencies that have animals as part of their exhibits - Organisations bringing animals to school (such as Delta Society programs, RSPCA or PetPep). - Breeding of mice or other appropriate animal in the classroom. - The appropriate care of classroom pets. - Non-invasive measurement of body weight, body condition by visual assessment or condition scoring, growth, body proportions, pulse or blood flow, respiration, skin temperature (non-invasive), age by dentition, scrotum and testicles (palpation). - Familiarisation activities. - Administering water as a treatment. - Collection of wool, milk, faeces or urine samples (non-invasive). - Administering a topical treatment to the udder. - Coat care and grooming. - Tail tagging. **Category 3: School Principal may <u>NOT</u> delegate** Activities requiring Category 3 approval - Category 3 comprises many routine techniques but none which requires the breaking of skin or any blood loss (e.g. blood samples, ear tagging etc). - Non-invasive measurement of body condition by ultrasound - Measurement of mild dietary effects (provided the normal nutritional needs for the life stage of the animals are met), high/normal protein, high/normal energy, high/normal fat, palatability - Taming/gentling. - Training for competition or showing. - Tethering animals. - Collection of saliva. - Measurement of body temperature (invasive). - Administering topical treatment by backline, spray or dip. - Administering drench or capsules orally. - Administering injections into the udder. - Coat clipping. - Hoof trimming: cattle. - Dagging - Milking - Putting nose clips on cattle. - Loading and unloading animals onto transporters.

	Showing animals at school and away. Foot bathing. Jetting animals. Using sire harnesses. Restraining with ropes. Pregnancy detection by external ultrasound. Horn tipping.
	Category 4: Animal Ethics Committee approval is required Activities requiring Category 4 approval - Category 4 comprises many routine husbandry techniques which have the potential to be painful or distressing to the animal. Breaking-in cattle or horses. Administering intraruminal, subcutaneous or intramuscular injections. Administering winged capsules orally. Administering intravenous injections or intrauterinepessaries. Ear marking/tagging of livestock. Tattoo application. Castration of calves Oestrus synchronisation. Microchip tagging. Dehorning cattle under six months of age. Detusking boars. Disbudding calves and kids. Commercial activities(for example growing turkeys for commercial sale) **Category 5: Animal Ethics Committee approval is required** Activities requiring Category 5 approval - Category 5 comprises many husbandry techniques which have the potential to be painful or distressing to the animal and require a level of expertise or supervision to ensure that adverse events do not occur. Collection of faeces, ruminal fluid or blood (invasive). Nose ringing. Fire branding of cattle and horses. Freeze branding of cattle and horses. Artificial insemination. Semen collection.
Authority:	**Government Schools** – Department for Animal Ethics Committee **Independent and Catholic Schools** - Non Government Schools Animal Ethics Committee
Authority Approval Date:	1 August 2010

Disclaimer:	*This document may be updated at any time. You should check the web site regularly to ensure that you are meeting the most recent recommendations. If you note any concerns with the information provided (inadequate, incorrect) please contact the relevant AEC (Refer to bottom of Standard Operating Procedure).*
Licensing Requirement:	Not applicable
Compliance Requirement:	The keeping of this species requires approval from the School Principal or the AEC. It is recommended that this Standard Operating Procedure be followed as a minimum in the provision of appropriate care and housing for this species.

Physical Attributes:	• **Size:** Varies greatly between breeds. Mature heights up to 1.5 metres at the shoulder, or taller for some large breeds.
	• **Weight:** Varies greatly with breed and stage of growth, may vary from 400-800kg.
	• **Age at adult size:** Varies between breeds, between 2 and 4 years.
	• **Weight at birth:** Small breeds 15-20 kg. Large breeds 35-40+ kg. These are only average weights and final birth weight is dependant upon the age of the cow, the nutrition of the cow (particularly in early pregnancy), the breed, the specific genetics of the parents, ie. some bulls 'throw' low birth weight cows and are actively selected for that as this can mean less problems at calving and whether it is a single or multiple birth.
	• **Gestation period:** Average 282 days, range 275-290 days.
	• **Number of offspring:** Normally one.
	• **Range of breeding ages:** Mating begins from 15-18 months, reproductive life 8-10 years.
	• **Weaning age:** 6-8 months.
	• **Healthy characteristics:**
	  ○ **Body Temperature:** 38.6°C, range 37.0°C-39.3°C
	  ○ **Respiration rate:** 20-40 breaths/minute

	○ **Heart rate:** 40-100 beats/minute ○ **Other:** moist muzzle, active, and alert, glossy coat, clear bright eyes.
Behaviour:	Cattle in a school or college situation should be docile, spending most of their time grazing or chewing the cud. They are social and will herd if kept in numbers. Cattle showing difficult temperaments should be culled and not used in a school situation.
Environment:	Cattle may be kept in extensive situations in a paddock or more intensive situations, such as feedlots. Cattle perform well in an open pasture that has plenty of available water as well as shelter from wind, rain and sun. The minimum space required in extensive situations is 0.5 ha per head assuming the pasture is balanced and well maintained. • *Model Code of Practice for the Welfare of Animals, Cattle,* 2nd Edition, 2004, PISC Report 85, CSIRO. • *Model Code of Practice for the Welfare of Animals, Land Transport of Cattle*, 2002, SCARM Report 77, CSIRO. For cattle kept in intensive situations, care must be taken with the following: • **Movement and exercise:** Cattle should be exercised daily. • **Temperature:** Heat stress can be a concern. In stalls, provide adequate ventilation; in feedlots, access to shade, such as trees or shelter, ispreferable. • **Light:** If cattle are kept indoors the area should be welllit. • **Ventilation:** In stalls, allow free air movement without creating draughts. • **Bedding:** Suitable materials for stalls include straw, sand or sawdust. Suitable drainage needs to be provided. • **Cleaning:** Clean the stalls daily. Feedlots that produce meat for export must be accredited under the National Feedlot Accreditation Scheme. Feedlot operations must comply with certain specified conditions. Check thispublication: ○ *National Guidelines for Beef Cattle Feedlots in Australia* (2nd edition), Standing Committee on Agriculture and Resource Management.
Feeding:	Cattle are most efficient, in terms of digestion, with good quality pasture comprising a balance of grasses and legumes. Fresh, clean water that is readily accessible is also needed for efficient growth. Care must be taken when cattle are put on pastures with a high legume content as bloat can occur. Remember, when hand-feeding, the rule is to introduce new food types slowly and carefully. Do not feed excessive quantities of grains, feed plenty of high quality roughage and feed small amounts at frequent intervals. There must be adequate trough space so all animals have equal access to food to prevent bullying and therefore eliminate unintentional over and under feeding. Monitoring of live weight or condition scoring will indicate the adequacy or otherwise of the feed conditions. • **Type:** Young calves: suckled on cow or use a milk replacement. Older cattle: grazing is the most economical. Supplementary feeding with hay and concentrate mixes may be necessary. If the cattle are solely grazed, a local veterinarian or Agriculture officer should be consulted to determine if there is a need for specific supplementation. • **Quantity:** Food quantities vary with the animal's weight, stages of growth and stages of production. As a guide, an average 450 kg cow requires 0.5 ha of good quality pasture. To hand feed the same cow requires approximately 10 kg of concentrates, plus hay, each day. • **Regularity:** For hand feeding, provide food twice daily for young calves and daily for other cattle. • **Essential dietary needs (variations):** Newborn calves must get colostrum in the first 24 hours. • **Water:** A clean, fresh, reliable supply is necessary. As a guide, a small cow will require 30–50 litres per day and more if she is lactating. For cattle kept in intensive systems, feed bins should be off the ground and automatic waterers, which supply clean, fresh water at all times, should be installed and checked daily. There should be adequate waterers for the number of cattle housed. In a feedlot situation dominant cattle will congregate between the food and water and may stop subordinate cattle from feeding and drinking if not enough space made available.
Handling:	Cattle need to be handled calmly and with care to prevent distress and injury to the animals and the handlers. A set of solid yards, preferably including a race and crush or head bail, is necessary for the adequate handling of cattle.

	The use of cattle prods should be discouraged. Cattle that are kept in schools should not require this handling technique. If, in exceptional circumstances, a cattle prod is needed, **only** the teacher should use it. **Movement of cattle:** There are a number of restrictions relating to the movement of cattle. To ensure you abide by the appropriate legislation, contact the PIRSA Primary Industries and Resources SA. Refer to *Model Code of Practice for the Welfare of Animals, Land Transport of Cattle*, 2002, SCARM Report 77, CSIRO. When transporting livestock there are a number of aspects to be aware of: • There should be no protrusions or sharp edges in the vehicle, doorway, floors or partitions. Hinges and latches should not project into areas where livestock have access. Gates should operate smoothly and retract fully. • The floor of the vehicle should be of a non slip material. • Truck bodies, crates or trailers should be designed so as to not allow any part of the animal to protrude from the vehicle. • The driver of the road transport vehicle is responsible for the welfare of the stock during transport, except where the owner or the owner's agent (Agricultural Teacher or Agricultural Assistant) travels with the animals. • Newborn livestock should be transported in a separate compartment or at least partitioned off from older stock. • During transit stock should be inspected 30 minutes after commencement of the journey and then at 90 minute intervals for the duration of the journey. • Led stock that are tethered in the vehicle should not be tied too short as to allow an unnatural stance, or tied too long to allow them to wander around and become entangled with each other or have feet and legs become entangled in lead ropes. • Stock with nose rings should not be tied by the nose rings, lead ropes on nose rings should be removed completely or at least tied securely around the neck. • Unled stock should not be transported if they are severely emaciated or drought stricken. • Care should be taken with females that are heavily pregnant if weather conditions are unfavourable (ie. hot, cold or wet) • Adequate shade and shelter should be provided depending on climatic conditions. • Spraying may be necessary if travelling between tick infested and clean areas.
Disease prevention	Disease control methods and internal and external parasite control programs should be developed in consultation with veterinarians or the Animal Disease Hotline 1800 675 888. Treatments must be documented in the appropriate records.
Signs of illness:	The health of stock should be monitored at least daily and preferably more often. The first sign of ill-health is often a change in the animal's natural demeanour. It may be listless or lethargic. Closer examinations may show variations in: • body temperature • gastrointestinal function such as diarrhoea, weight loss or loss of appetite • urogenital function, e.g. abortion, infertility or abnormal discharges • respiratory function such as persistent coughing, gasping or panting; **or** Closer examination may show evidence of: • skin conditions, such as lesions or abnormal growths • a tucked-up appearance, stiff gait, abnormal posture, patchy coat or loss of hair • excessive scratching or rubbing • swollen joints or lameness • bellowing. A failure to thrive or grow is another sign of illness. Common ailments may include mastitis, bloat, internal parasites or milk fever. If the cause of ill-health cannot be identified and corrected, assistance should be sought from a veterinarian who is familiar with cattle. Any signs of illness or injury, and treatments given, should be documented in the appropriate records.
Euthanasia:	Where an animal has become so sick, diseased or injured that recovery is unlikely or undesirable, on humane grounds euthanasia must be arranged with a local veterinarian or a person competent in the technique for cattle. Any death must be reported to the Animal Ethics Committee using the appropriate form (see section relating to ADVERSE EVENTS). Forms are available on the relevant websites – see contact details below.

Disposal/fate planning:	Cattle can be sold privately, at auction or consigned to an abattoir. Cattle must not be released into the wild. Carcases must be disposed of in accordance with local council regulations.
Holiday and weekend care:	Cattle need to be monitored, checked and fed regularly over weekends and holiday periods.
Approved activities:	Observation, breeding, farming
Resources:	
Websites:	www.pir.sa.gov.au http://www.ufaw.org.uk/ https://www.library.sydney.edu.au/ http://www.ansi.okstate.edu/LIBRARY/index2.html
Texts:	*Cattle Australia* Murray David Publishing Jan – 2009, 21-Nov-08
Contact:	**Department for Education Animal Ethics Committee** https://edi.sa.edu.au/educating/programs-initiatives/animal-ethics Phone: 8463 5986 Email: education.animalethics@sa.gov.au

AEC STANDARD OPERATING PROCEDURES

SOP No:	**06**
SOP	**Domestic Fowls**
Scientific Name:	***Gallus sp*** **Varietal range difference:** Both layers and broilers are available in a range of breeds.
Category:	**2, 3, 4, 5**
Approval Level:	**Category 2: School Principal may delegate** Activities requiring Category 2 approval - Mustering, drafting (in crush or bailhead), capture, restraint and handling of non-free-living domesticated animals (grooming or holding an animal, collecting a milk sample, non-invasive measurements, leading or riding an appropriately trained animal). - Observation of particular animal behaviours, e.g. oestrus, parturition - School performance by outside agencies that have animals as part of their exhibits - Organisations bringing animals to school (such as Delta Society programs, RSPCA or PetPep). - Breeding of mice or other appropriate animal in the classroom. - The appropriate care of classroom pets. - Non-invasive measurement of body weight, body condition by visual assessment or condition scoring, growth, body proportions, pulse or blood flow, respiration, skin temperature (non-invasive), age by dentition, scrotum and testicles (palpation). - Familiarisation activities. - Administering water as a treatment. - Collection of wool, milk, faeces or urine samples (non-invasive). - Animals on loan from the Nature Education Centre. (Note : the NEC will report directly to the Animal Ethics Committee on the number of animals loaned so schools should not include them in their returns) **Category 3: School Principal may NOT delegate** Activities requiring Category 3 approval - Category 3 comprises many routine techniques but none which requires the breaking of skin or any blood loss (e.g. blood samples, ear tagging etc). - Non-invasive measurement of body condition by ultrasound - Measurement of mild dietary effects (provided the normal nutritional needs for the life stage of the animals are met), high/normal protein, high/normal energy, high/normal fat, palatability - Taming/gentling. - Training for competition or showing. - Measurement of body temperature (invasive). - Administering drench or capsules orally. - Loading and unloading animals onto transporters. - Showing animals at school and away. **Category 4: Animal Ethics Committee approval is required** Activities requiring Category 4 approval - Category 4 comprises many routine husbandry techniques which have the potential to be painful or distressing to the animal. - Administering intraruminal, subcutaneous or intramuscular injections. - Administering winged capsules orally. - Administering intravenous injections or intrauterinepessaries. - Tattoo application. - Beak trimming. - Oestrus synchronisation. - Microchip tagging. - Commercial activities(for example growing turkeys for commercial sale) **Category 5: Animal Ethics Committee approval is required** Activities requiring Category 5 approval - Category 5 comprises many husbandry techniques which have the potential to be painful or distressing to the animal and require a level of expertise or supervision to ensure that adverse events do not occur. - Collection of faeces, ruminal fluid or blood (invasive). - Artificial insemination.

	Semen collection.
Authority:	**Government Schools** – Department for Education Animal
	Ethics Committee **Independent and Catholic Schools** - Non Government Schools Animal Ethics Committee (NGSAEC)
Authority Approval Date:	1 August 2010

Disclaimer:	*This document may be updated at any time. You should check the web site regularly to ensure that you are meeting the most recent recommendations. If you note any concerns with the information provided (inadequate, incorrect) please contact the relevant AEC (Refer to bottom of Standard Operating Procedure).*
Licensing Requirement:	Not applicable
Compliance Requirement:	The keeping of this species requires approval from the School Principal or the AEC. If the purpose includes breeding and commercial activity, approval is required by the DECS Animal Ethics Committee. It is recommended that this Standard Operating Procedure be followed as a minimum in the provision of appropriate care and housing for this species.

Physical Attributes:	• **Size:** height of Bantam hen, approximately 150mm; large fowl, approximately 700mm • **Weight:** Bantam hen, approximately 500g; large male fowl, approximately 6kg • **Weight at birth:** 20g - 40g • **Incubation period:** 19 - 21 days • **Range of breeding ages:** 6 months to 7 years, depending on breed. Some birds may continue to lay longer than 7years • **Body temperature:** 39.5ºC (+/- 0.5ºC) • **Heart rate:** 150 - 400 beats/minute • **Respiration rate:** 12 - 36 breaths/minute
Behaviour:	Housing and husbandry practices must allow chickens to express their normal behaviours. These include: • foraging behaviour: chickens need to forage for food by scratching and pecking as they investigate their surroundings. If they are not allowed to forage, they peck, pull and tear at objects and other chickens, often developing feather-pecking behaviour. • locomotive behaviour: hens will walk 1km - 1.5km per day, if space permits. They will also fly to elevated perches if provided with the opportunity. • resting behaviour: chickens prefer to roost on higher rather than lower perches. They may rest by standing, lying, sleeping or dozing. • preening, stretching, flapping, dust bathing, sunbathing and body shaking areall comfort behaviours. They also help to keep the birds' feathers in good shape. • social behaviour: chickens develop fairly stable groups, with birds holding various ranks within these groups. • nesting and laying behaviour: chickens need adequate nesting sites or they become stressed and develop abnormal behaviours. • enriched environments reduce fear and stress in chickens, and • As chickens are flock animals, a minimum of two should be kept at a time. A healthy domestic chicken's normal behaviour is characterised by alertness, with an erect carriage.

Environment:	• Grassed runs should provide a minimum of 7.5m2 per bird, although more space is desirable. • In minimum confines, the chicken must be able to turn around without losing its normal stance, have room to flap its wings and be able to walk and forage. Food and water should be easily accessible. • For layers, the preferred temperature range is 20ºC - 28ºC. Temperatures below l0ºC and above 32ºC cause stress. Newly-hatched birds are very sensitive to temperature. Day-old chicks require an environment at 33ºC, which should be reduced by 3ºC every week until it reaches 21ºC at 28 days of age. • All young birds are unable to maintain their body temperatures until they reach about six weeks of age and therefore need to be supplied with an artificial heat source. The chicks themselves are useful indicators of temperature: if it is too hot, they disperse and if it is too cold they huddle together. • Shedded birds must have a reasonable amount of light, with cycles of light and darkness. If they are kept in the light all the time, they may panic and smother themselves in the event of a blackout. • Avoid draughts and chilling winds. Also, ammonia build-up in intensive situations must be prevented: it causes distress to poultry as well as to humans. This can be done by reducing the number of birds and improving ventilation. • Shelter provided for birds should be sufficient to protect them from climatic extremes – temperature, wind, rain and direct sunlight. Outside pens must be
	covered and secured to protect the birds from predators. Bedding should be composed of clean dry litter of rice hulls, shavings from untreated timber, straw or sand. Little cleaning should be required, if the litter is kept deep and dry. • Nesting materials must be clean, dry, friable and absorb moisture: for example, clean dry sand, straw or wood shavings. Nesting boxes can be used. If available, plastic drums of approximately 15L- 25L capacity, with the bases cut out, leaving small lips to hold back nesting materials, should be available at the ratio of one nesting box for every three or four birds. The nest should be reasonably dark and sufficient to isolate one bird from another to avoid egg damage and aggressive behaviour by some birds during nesting. It is important to ensure that there is adequate perch space to accommodate all the birds at once. Each bird should be provided with at least 150 mm of perch space.
Feeding:	• Suitable food includes pellets, crumbles, mash, grain, small amount of green feed and grit. Commercially- prepared food is recommended, as it meets of the birds' nutritional needs. • Adult fowls require 120g - 160g of pellets per day. These requirements vary with the quality of diet, breed and physiological status of each bird and environmental conditions. Check with the department of Primary Industries for the correct diet. • Demand feeding should be practised, preferably at least twice a day, in the morning and evening. • A clean, adequate supply of water, placed in a cool shaded area, is required. If automatic nipple drinkers are used, they should always be fitted with fail-safe mechanisms. Consumption ranges from a few millilitres for chickens to 500mL per day in summer for adult birds.
Handling:	• Chickens must be handled calmly and with care to prevent distress and injury to them. • Chickens should be captured and handled only when necessary and be accustomed to handling from a young age. Avoid chasing birds as this agitates them and causes them to pile up in corners. If a catching hook is used, a bird should be drawn towards the handler firmly but not so quickly as to damage shank, leg or joints. Firmly and quietly transfer the bird to the holding position. • The holding position involves restraining one hock joint between the index finger and thumb, and the other hock joint between the third and fourth fingers. The bird's breast, or keel bone, sits comfortably on the palm of the hand with the bird's head pointing towards the handler's body and the vent away. • When walking with a bird, its head can be tucked under the carrier's upper arm. The non-holding arm can be used to assist with restraining the bird and prevent the wings from flapping.
Disease prevention:	Disease control methods and internal and external parasite control programs should be developed in consultation with veterinarians or the department of Primary Industries//is this SA title. All activities must be documented in the appropriate records.

Signs of illness:	Birds' health should be monitored at least daily and preferably more often. The first sign of ill health may be noticed as a change in the chickens' natural demeanour. They may be listless or lethargic. On closer examination, signs of illness can include: • diarrhoea • nasal discharge • sneezing • nervous signs or paralysis • inactivity: head under wing, feathers ruffled, isolated from group • pale or purple comb • frequent shutting of eyes, and • little response when touched or pushed, or often pecked at by another fowl. A failure to thrive or grow is another sign of illness. If you are unable to identify and correct the cause of ill-health, assistance should be sought from veterinarians who are familiar with chickens. Treatments must be documented in the appropriate records. For information call the Animal Disease Hotline 1800 675 888.
Euthanasia:	In the case of a bird becoming so sick, diseased or injured that recovery is unlikely or undesirable, on humane grounds euthanasia must be arranged with a veterinarian or a person competent in the technique for fowls. Any death must be reported to the Animal Ethics Committee using the appropriate form (see section relating to ADVERSE EVENTS). Forms are available on the relevant websites – see contact details below.
Disposal/fate planning:	A fate plan should be considered before using chickens in any programs. As social, flock animals, chickens must not be re-homed in isolation, a minimum of two should be housed together. Chickens can be sold privately, at auction or consigned to registered processors. Chickens must not be released into the wild.
Holiday and weekend care:	Chickens need to be monitored, checked and fed regularly over weekends and holiday periods. Care should be taken to more regularly check shedded birds in times of extreme heat and cold.
Approved activities:	Observation, breeding, farming.
Resources:	
Websites:	www.pir.sa.gov.au www.adelaide.edu.au/ANZCCART www.dpi.vic.gov.au https://www.library.sydney.edu.au/
Texts:	Reading, D. (1990) *A Guide to Keeping Poultry in Australia.* Ringwood, Victoria: Ringwood O'Neil.
Contact:	**Department for Education Animal Ethics Committee** https://edi.sa.edu.au/educating/programs-initiatives/animal-ethics Phone: 8463 5986 Email: education.animalethics@sa.gov.au

AEC STANDARD OPERATING PROCEDURES

SOP No:	**07**
SOP	**Ducks and Geese**
Scientific Name:	***Anas sp* (duck) and *Anser sp* (goose)**
Category:	**2, 3, 4, 5**
Approval Level:	**Category 2: School Principal may delegate** Activities requiring Category 2 approval - Observation of particular animal behaviours, e.g. oestrus, parturition - School performance by outside agencies that have animals as part of their exhibits - Organisations bringing animals to school (such as Delta Society programs, RSPCA or PetPep). - The appropriate care of classroom pets. - Non-invasive measurement of body weight, body condition by visual assessment or condition scoring, growth, body proportions, pulse or blood flow, respiration, skin temperature (non-invasive), age by dentition, scrotum and testicles (palpation). - Familiarisation activities. - Administering water as a treatment. - Collection of wool, milk, faeces or urine samples (non-invasive). - Animals on loan from the Nature Education Centre. (Note : the NEC will report directly to the Animal Ethics Committee on the number of animals loaned so schools should not include them in their returns) **Category 3: School Principal may <u>NOT</u> delegate** Activities requiring Category 3 approval - Category 3 comprises many routine techniques but none which requires the breaking of skin or any blood loss (e.g. blood samples, ear tagging etc). - Non-invasive measurement of body condition by ultrasound - Measurement of mild dietary effects (provided the normal nutritional needs for the life stage of the animals are met), high/normal protein, high/normal energy, high/normal fat, palatability - Taming/gentling. - Training for competition or showing. - Collection of saliva. - Measurement of body temperature (invasive). - Administering drench or capsules orally. - Loading and unloading animals onto transporters. - Showing animals at school and away. - Jetting animals. - Pregnancy detection by external ultrasound. **Category 4: Animal Ethics Committee approval is required** Activities requiring Category 4 approval - Category 4 comprises many routine husbandry techniques which have the potential to be painful or distressing to the animal. - Beak trimming. - Oestrus synchronisation. - Microchip tagging. - Commercial activities(for example growing turkeys for commercial sale) **Category 5: Animal Ethics Committee approval is required** Activities requiring Category 5 approval - Category 5 comprises many husbandry techniques which have the potential to be painful or distressing to the animal and require a level of expertise or supervision to ensure that adverse events do not occur. - Collection of faeces, ruminal fluid or blood (invasive).
Authority:	**Government Schools** – Department for Education Animal Ethics Committee **Independent and Catholic Schools** - Non Government Schools Animal Ethics Committee
Authority Approval Date:	1 August 2010

Disclaimer:	*This document may be updated at any time. You should check the web site regularly to ensure that you are meeting the most recent recommendations. If you note any concerns with the information provided (inadequate, incorrect) please contact the relevant AEC (Refer to bottom of Standard Operating Procedure).*
Licensing Requirement:	Not applicable
Compliance Requirement:	The keeping of this species requires approval from the School Principal or the AEC.

	It is recommended that this Standard Operating Procedure be followed as a minimum in the provision of appropriate care and housing for this species.

General Information:	
Physical Attributes:	• **Size:** ducks up to 600 mm in length, geese up to 900mm • **Weight:** drake 1 kg–6.5 kg, duck 800 g–4.5 kg; gander 4 kg–14 kg, goose 4 kg–9kg • **Age at adult size:** 6-12 months • **Weight at birth:** approximately 50 g • **Incubation period:** ducks 28-33 days, geese 35 days • **Range of breeding ages:** ducks from 6 months, geese from 12 months • **Body temperature:** 40ºC – 41ºC • **Heart rate:** 180-340 beats/minute
Behaviour:	The normal behaviour of ducks or geese is to be alert with a level carriage. They often waddle about and peck as they investigate the surroundings. They emit characteristic quacking or honking noises when their territories are entered.
Environment:	Ducks and geese appreciate a ranging situation but can be raised successfully in more confined situations. Ducks and geese prefer temperatures between 20 0ºC and 28°C. Temperatures below 10 ºC and above 32 ºC cause stress. Birds kept in sheds must not be kept in the dark. Draughts and chilling winds should be avoided. Ventilation is required to prevent ammonia build-up in intensive situations. Sufficient shelter is required to protect from extremes of temperature, wind and rain and direct sunlight. Bedding should be clean, dry litter in the form of rice hulls, shavings from non-treated timber, straw or sand. The area should be checked and cleaned as required. Little cleaning is required if the litter is deep and kept dry. Ducks generally require little assistance in setting up their nests. Nesting boxes 300 mm x 400 mm with 400 mm-high sides or, if available, plastic drums of approximately 25 L capacity with the bases cut out, leaving small lips to hold back nesting materials, can be provided. One nesting box or drum can service three or four birds. The nest should be reasonably dark and be large enough to isolate one bird from another to avoid egg damage and aggressive behaviour during nesting time. A pond that is deep enough to enable the ducks to dabble regularly is an advantage. If there is no pond, a water container large enough to enable ducks to immerse their heads and dabble is required.
Feeding:	Use commercial duck rations. If unavailable, domestic chicken feeds will suit. Geese consume 250 g-300 g per day when on commercial rations only, or less if they also graze on grass. Ducks require 120 g-150 g of mash or pellets per day. These requirements vary with quality of diet, breed and physiological status of bird and environmental conditions. Check with the department of Agriculture Primary Industries and Resources SA for correct diet regimen. Demand feeding is preferred, but feed should be supplied at least twice per day (morning and evening). Do not force feed. Like domestic chickens, goslings and ducklings require high-protein foods. Geese appreciate a grassed, grazing area. At all times, water must be cool, clean and fresh and of acceptable quality and sufficient quantity.
Disease prevention:	Disease control methods and internal and external parasite control programs should be developed in consultation with veterinarians or the department of Agriculture. All activities must be documented in the appropriate records. Primary Industries and Resources SA or the Animal Disease Hotline 1800 675 888.
Breeding:	
Handling:	Ducks and geese must be handled calmly and with care to prevent distress and injury to them.
Hygiene:	
Signs of illness:	Bird health should be monitored at least daily and preferably more often. The first sign of ill-health may be noticed as a change in the birds' natural demeanour. They may be

	listless or lethargic and show signs of: • inactivity, with head under wing, feathers ruffled or isolated from group; • frequent shutting of eyes; • little response when touched, pushed or pecked at by other birds; • reduced feeding and/or water intake; • lameness; • reduced growth or egg production; or • diarrhoea. A failure to thrive or grow is another sign of illness.
Treatments:	If you are unable to identify and correct the cause of ill-health, assistance should be sought from veterinarians who are familiar with ducks or geese. Illnesses, injuries and treatment given must be documented in the appropriate records.
Euthanasia:	When an illness or injury is such that recovery is unlikely then the animal must be euthanased by a veterinarian. Any death must be reported to the Animal Ethics Committee using the appropriate form (see section relating to ADVERSE EVENTS). Forms are available on the relevant websites – see contact details below.
Disposal/fate planning:	A fate plan should be considered before using a duck or goose in any program. Birds that are no longer required must be re-homed. Ducks and geese must not be released into the wild.
Holiday and weekend care:	Ducks and Geese need to be monitored, checked and fed regularly over weekends and holiday periods. Care should be taken to more regularly check birds in sheds in times of extreme heat and cold. Be mindful that essential service failures such as power and water can have catastrophic affects in a very short time.
Approved activities:	Observation, breeding, farming
Resources:	
Websites:	www.pir.sa.gov.au www.agric.wa.gov.au
Texts:	Reading, D. (1990). *A Guide to Keeping Poultry in Australia*. Ringwood, Victoria: Viking O'Neil
Contact:	**Department for Education Animal Ethics Committee** https://edi.sa.edu.au/educating/programs-initiatives/animal-ethics Phone: 8463 5986 Email: education.animalethics@sa.gov.au

AEC STANDARD OPERATING PROCEDURES

SOP No:	**08**
SOP	**Dunnart (Fat tailed)**
Scientific Name:	*Sminthopsis crassicaudata*
Category:	**2 or 3**
Approval Level:	**Category 2: School Principal may delegate** Activities requiring Category 2 approval - Observation of particular animal behaviours, e.g. oestrus, parturition - School performance by outside agencies that have animals as part of their exhibits - Organisations bringing animals to school (such as Delta Society programs, RSPCA or PetPep). - Breeding of mice or other appropriate animal in the classroom. - The appropriate care of classroom pets. - Non-invasive measurement of body weight, body condition by visual assessment or condition scoring, growth, body proportions, pulse or blood flow, respiration, skin temperature (non-invasive), age by dentition, scrotum and testicles (palpation). - Familiarisation activities. - Administering water as a treatment. - Collection of wool, milk, faeces or urine samples (non-invasive). - Animals on loan from the Nature Education Centre. (Note : the NEC will report directly to the Animal Ethics Committee on the number of animals loaned so schools should not include them in their returns) **Category 3: School Principal may <u>NOT</u> delegate** Activities requiring Category 3 approval - Category 3 comprises many routine techniques but none which requires the breaking of skin or any blood loss (e.g. blood samples, ear tagging etc). - Non-invasive measurement of body condition by ultrasound - Measurement of mild dietary effects (provided the normal nutritional needs for the life stage of the animals are met), high/normal protein, high/normal energy, high/normal fat, palatability - Taming/gentling. - Collection of saliva. - Measurement of body temperature (invasive). - Showing animals at school and away.
Authority:	**Government Schools** – Department for Education Animal Ethics Committee **Independent and Catholic Schools** - Non Government Schools Animal Ethics Committee (NGSAEC)
Authority Approval Date:	1 August 2010

Disclaimer:	*This document may be updated at any time. You should check the web site regularly to ensure that you are meeting the most recent recommendations. If you note any concerns with the information provided (inadequate, incorrect) please contact the relevant AEC (Refer to bottom of Standard Operating Procedure).*
Licensing Requirement:	Not applicable
Compliance Requirement:	The keeping of this species requires approval from the School Principal. It is recommended that this Standard Operating Procedure be followed as a minimum in the provision of appropriate care and housing for this species.

General Information:	There are many species of dunnart. The Fat-tailed Dunnart (Sminthopsis crassicaudata) and the Striped-faced Dunnart (Sminthopsis macroura) are the most wide-spread. The range of the Fat-tailed species extends over much of the southern two thirds of the Australian mainland, while that of the Striped-faced form extends over most of the northern two thirds of the continent ie, their ranges overlap in central Australia. Dunnarts are basically insectivorous though they have been known to take small lizards and juvenile mice. Both species have the ability to store fat in the tails which helps them survive periods of food shortage. Another adaptation, which helps them survive the scarcity of food in winter, is the ability to enter a temporary torpor and so reduce the energy demands on the body. They take shelter against cold, heat and predators under rocks, stumps, logs or within deep cracks in the soil. In such refuges they usually create a nest of grass or other natural litter. At times a number of them may congregate in a single nest and this serves to conserve body heat.

Physical Attributes:	• **Size (adult):** head and body length of approx 90mm and tail length of approx 60mm • **Weight (adult):** 12-22gms • **Life span:** 30 – 48 month in captivity • **Sexual maturity:** approx 5 months in females and 8 months in males • **Gestation period:** 13-16 days • **Number of offspring:** 6-8
Behaviour:	
Environment:	• **Space:** Typical laboratory housing should consist of a galvanised cage about 50 x 35 x 30cm including a plate-glass front, a removable tray floor and a galvanised mesh top with a hinged flap at the front. Loam is used to cover the floor (sawdust is unsuitable) and a nest-box loosely filled with shredded paper provided for shelter. Water is available via a cagebird seed/water dispenser (sipper tubes are ineffective). A number of hollow logs should be provided for shelter. Mouse exercise wheels are useful. • **Cleaning:** Dunnarts tend to have specific toileting areas, this area should be cleaned at regular intervals to maintain hygiene and odour control. Full enclosure cleaning should be done every 4-5 weeks.
Feeding:	• **Diet:** Good quality canned cat food (meat variety only NOT fish) eg, Jellymeat Whiskas, is a good basic diet which can be supplemented with mealworms (*Tenebrio* larvae). Dry cat food can be used to a limited extent to provide food over periods of non-attendance. Always supply fresh water with dry cat food. • **Daily requirements:** The daily rations for *s.crassicaudata* are 10gm Whiskas and mealworms, dry cat food 2 1/2 gm. Double these quantities for *s. macroura*. Please note that dried dog food is usually unacceptable unless soaked first.
Breeding:	Dunnarts are seasonal breeders with litters born between July and February. Females may raise 2 litters in this period. The gestation period is 13-16 days with the young attached to the nipples for about 40 days, with weaning occurring at 70 days. *S. crassicaudata* can raise a maximum of 10 young though more may be born than the 10 nipples can accommodate. *S. macroura* has only 8 nipples and only 8 young can be raised. The pouch is well developed in both species. In the males the testes, covered by a well-furred scrotum, are very prominent and thus the presence/absence of pouch-testes makes sex determination simple. Females are sexually mature at 5 months and males at 8 months of age in both species.
Handling:	
Hygiene:	Thoroughly wash hands with soap and running water for at least 10-15 seconds after working with or handling any animals. Dry hands with clean paper, cloth towel or air dryer. Turn off the tap with the paper towel if possible. Follow first aid procedures should a bite occur.
Signs of illness:	
Treatments:	Assistance from a veterinarian should be sought for confirmation of conditions and treatment options.
Euthanasia:	When an illness or injury is such that recovery is unlikely then the animal must be euthanased by a veterinarian. Any death must be reported to the Animal Ethics Committee using the appropriate form (see section relating to ADVERSE EVENTS). Forms are available on the relevant websites – see contact details below.
Disposal/fate planning:	When no longer required dunnarts must be re homed. As a captive species they must NEVER be released into the environment. Bodies must be disposed of correctly in accordance with local council regulations.
Holiday and weekend care:	Dunnarts generally cope with being rostered to responsible carers. They need to be checked and fed regularly over weekends and holiday periods if they remain on site. Records must be kept of 'off site' care. Cages and feeding equipment and supplies must be provided to carers, with contact details foremergencies.
Approved activities:	Observation

Resources:	
Websites:	
Texts:	Bennet, J.H., Smith, M.J. Hope, R.M. & Chesson, C.M (1982) The Establishment & Maintenance of a Laboratory Colony of Sminthopsis crassicaudata (Gould). Bioinformatics Victorian Faunal Web Site. Published on the Internet; http://www.museum.vic.gov.au/bioinformatics/
Contact:	**Department for Education Animal Ethics Committee** https://edi.sa.edu.au/educating/programs-initiatives/animal-ethics Phone: 8463 5986 Email: education.animalethics@sa.gov.au

AEC STANDARD OPERATING PROCEDURES

SOP No:	**09**
SOP	**Fish (for fish used in Aquaculture programs see separate SOP)**
Scientific Name:	***Varies in relation to species kept – native or exotic, cold or tropical, fresh or marine.***
Category:	**2 & 3**
Approval Level:	**Category 2: School Principal may delegate** Activities requiring Category 2 approval - Observation of particular animal behaviours, e.g. oestrus, parturition - School performance by outside agencies that have animals as part of their exhibits - Organisations bringing animals to school (such as Delta Society programs, RSPCA or PetPep). - Breeding of mice or other appropriate animal in the classroom. - The appropriate care of classroom pets. - Non-invasive measurement of body weight, body condition by visual assessment or condition scoring, growth, body proportions, pulse or blood flow, respiration, skin temperature (non-invasive), age by dentition, scrotum and testicles (palpation). - Familiarisation activities. - Collection of wool, milk, faeces or urine samples (non-invasive). - Animals on loan from the Nature Education Centre. (Note : the NEC will report directly to the Animal Ethics Committee on the number of animals loaned so schools should not include them in their returns) **Category 3: School Principal may <u>NOT</u> delegate** Activities requiring Category 3 approval - Category 3 comprises many routine techniques but none which requires the breaking of skin or any blood loss (e.g. blood samples, ear tagging etc). - Measurement of mild dietary effects (provided the normal nutritional needs for the life stage of the animals are met), high/normal protein, high/normal energy, high/normal fat, palatability - Measurement of body temperature (invasive). - Showing animals at school and away.
Authority:	**Government Schools** – Department for Education Animal Ethics Committee **Independent and Catholic Schools** - Non Government Schools Animal Ethics Committee (NGSAEC)
Authority Approval Date:	1 August 2010

Disclaimer:	*This document may be updated at any time. You should check the web site regularly to ensure that you are meeting the most recent recommendations. If you note any concerns with the information provided (inadequate, incorrect) please contact the relevant AEC (Refer to bottom of Standard Operating Procedure).*
Licensing Requirement:	Not applicable
Compliance Requirement:	The keeping of this species for observation requires the approval of the School Principal. For Aquaculture programs approval is required from the Animal Ethics Committee (see separate SOP). It is recommended that this Standard Operating Procedure be followed as a minimum in the provision of appropriate care and housing for this species.

General Information:	If the keeping of fish on the site is purely for observation, approval can be granted by the School Principal. If the purpose includes breeding, commercial aquaculture, measuring, weighing or scientific activity approval will be required by the AEC. (See Aquaculture Standard Operating Procedure). Information on species can be found from aquarium outlets, literature, museums, fisheries departments, veterinarians and the web. Fish belong to three categories jawless, bony and cartilaginous. Goldfish (*Carassius auratus*) are one of the most common species kept for observation purposes. They are colourful, peaceful, and have a long lifespan. The ancestors of this species originated in China and were of dull brown colouration. The Chinese have selectively bred them over the centuries to develop the different colour, scale and body shapes. The Comets, Shubunkins, Fantails, Veil tails, Telescope Moors, Bubble Eye and Celestials are only a few of the breeds of this single species available. Depending on breed, goldfish can attain a length of between 10 - 20cm, with a lifespan of 20 years.

	When selecting fish they should; • Be clear and bright, fins held erect • Be alert and swim without undue effort • Not be sinking or bobbing to the surface, have lumps, bumps, wounds or clamped fins. • Not have a trail of excreta from their vent • Not be 'sulking' in the corner. If you have any doubts don't select them. If fish are donated, keep them separate until you can be assured they are fit and healthy. Adding them straight to the aquarium may infect other fish.
Physical Attributes:	• **Size (adult):** Varies with species and can vary in relation to the size of the aquarium, feeding levels and the number of fish present in the aquarium. • **Weight (adult):** Varies with species from 2 – 250gms. • **Life span:** Varies with species. • **Sexual maturity:** Varies with species. • **Gestation period:** Once an adult fish they can continue spawning. • **Number of offspring:** Varies with species
Behaviour:	• **Normal:** Varies with species. Research the species you intend to keep. • **Socialisation:** Where different species are kept together or where fish of the same species are different sizes conflicts can occur. They can bully others. • **Activity levels:** Varies with species.
Environment:	• **Space:** You will need a large aquarium that provides sufficient area for the species and number of fish being kept. Set up your aquarium with aerator, filters, pondweed, plants, smooth pebbles (up to 7cm) and a rock/item for hiding beneath. You should attempt to replicate a natural environment. As a guide a 1.5cm fish needs 4.5lts water. • **Movement:** Requirements vary with species; some are slow movers others swim about rapidly. Fish should have ample room to swim around. Where there are more fish in the aquarium more space is needed. • **Water:** Water environments should be stabilised before fish are added. Tap water should be allowed to stand for 2-7 days before adding plants and fish to allow the chlorine to evaporate. Use commercial preparations to keep the pH level between 6.5 and 8.0. Saltwater tanks require prior experience and knowledge to maintain. • **Temperature:** When an indoor aquarium is used the water should be kept at room temperature and should not be exposed to direct sunlight, which will increase the growth of algae. Temperature range should be between 20-25oC. Tropical aquariums will require more heated controlled temperature ranges – check with the aquarium outlet. • **Filtration:** Essential for providing the correct environment for the health of the fish. Mechanical filtration systems are the easiest to use. • **Lighting:** No artificial lighting is required unless there are plants. Avoid direct sunlight on the tank as the water heats up and algae grow. Lights are required for tropical tanks. Lights must be set to a timer. Lights should not befrequently switched on and off as this can upset the fish. Lights can be set to a timer. Plants require light for up to 12 hours so set timers to provide this. • **Covering:** Where the fish are at risk from young children or where the water is closer than 10cm to the top of the aquarium a glass or mesh covering over the aquarium should be provided. A solid cover will assist with ensuring dust and toxins do not enter the aquarium however do not cover the tank if no filter is in place and working. DO NOT spray chemicals near the aquarium. • **Shelter:** The aquarium should provide an area for refuge from lights, action and other fish. This can be created with plants and rocky overhangs. • **Cleaning:** It is recommended that conditioned water of the same temperature be used to replace approx 25% of the water each week. Cleaning of the aquarium should occur every term. To clean the whole tank remove the fish and place them in a covered container with 25% of their tank water and 75% fresh. Clean the sides of the glass and clean the gravel and items. Do not use chemicals. Rinse the tank carefully and fill again with conditioned water. Refill the tank and allow it to stand for half a day before returning the fish.
Feeding:	• **Diet:** Manufactured fish foods – flakes and granules, can be fed to tropical or temperate fish. • **Daily requirements:** Only feed food quantities that can be eaten within a few minutes otherwise overfeeding and soiling of the water can occur. Feed once a day.

	• **Supplementary feeding:** Some fish may need frozen food mixtures, shrimp and larvae. Do not feed these unless directions are received from a reputable source (vet, aquarium outlet). • **Equipment**: N/A.
Breeding:	• **Mating:** Fish are sexually mature when adults. • **Pregnancy:** Females expel eggs that are fertilised. There is no parental care. Be aware some fish may eat their eggs and young. Use a separate breeding tank. • **Fate planning**: Breeding stock must be re homed. All species must NEVER be released into the environment or water ways.
Handling:	• **Human:** Fish should not be handled or kept out of the water. This damages their skin and exposes them to increased risk of bacterial or fungal infections. • **Equipment:** An aquarium net should be used for capturing or moving fish. • **Transporting:** Fish should be transported in watertight clear plastic bags, half water and half air. Transport quickly and do not leave unattended or allow the fish to heat. • **Children:** Should not handle fish. Observation only. Ensure children do not knock on the tanks.
Hygiene:	The wastewater from tank cleaning must not be discarded into the stormwater drains or septic tank systems. It can be placed on gardens or it must be treated with 1:5 ratio of bleach to water and be poured into the toilet. Thoroughly wash hands with soap and running water for at least 10-15 seconds after working or handling any animals. Dry hands with clean paper, cloth towel or air dryer. Turn off the tap with the paper towel if possible.
Signs of illness:	• **Indicators:** loss of appetite, listing, skin lesions, floating upside down, poor swimming balance, spots, ulcers or growths, failure to thrive.
Treatments:	Assistance from a veterinarian should be sought for confirmation of conditions and treatment options.
Euthanasia:	When an illness or injury is such that recovery is unlikely then the animal must be euthanased by a veterinarian. Any death must be reported to the Animal Ethics Committee using the appropriate form (see section relating to ADVERSE EVENTS). Forms are available on the relevant websites – see contact details below.
Disposal/fate planning:	When no longer required fish must be re homed. They must NEVER be released into the environment and waterways. Bodies must be disposed of correctly in accordance with local council regulations. Sick or dead fish MUST NOT be flushed down the toilet.
Holiday and weekend care:	As fish require specific conditions they would not cope well with being rostered to family carers. They need to be checked and fed regularly over weekends and holiday periods.
Approved activities:	Observation
Resources:	
Websites:	www.agriculture.gov.au
Texts:	Grant, E.M. (1982) *Guide to fish* 5th Edition, Brisbane Queensland. Leggett, R and Merrick, J.R. (1996) *Australian Native Fish for Aquariums*. Sydney NSW. Hibbert, C. (2004) *Looking after your pet fish* White-Thomson Publishing Ltd. RSPCA (1980) *Care for your Goldfish* Harper Collins Publishers. Broome, E. (1996) *Pets – Fish* Macmillan Education Australia Publishing Ltd. McClish, B. (1999) Fishing and Aquaculture Macmillan Education Australia Publishing Ltd.
Contact:	**Department for Education Animal Ethics Committee** https://edi.sa.edu.au/educating/programs-initiatives/animal-ethics Phone: 8463 5986 Email: education.animalethics@sa.gov.au

AEC STANDARD OPERATING PROCEDURES

SOP No:	**10**
SOP	**Goats**
Scientific Name:	***Capra hircus***
Category:	**2, 3, 4, 5**
Approval Level:	**Category 2: School Principal may delegate** Activities requiring Category 2 approval - Mustering, drafting (in crush or bailhead), capture, restraint and handling of non-free-living domesticated animals (grooming or holding an animal, collecting a milk sample, non-invasive measurements, leading or riding an appropriately trained animal). - Observation of particular animal behaviours, e.g. oestrus, parturition - School performance by outside agencies that have animals as part of their exhibits - Organisations bringing animals to school (such as Delta Society programs, RSPCA or PetPep). - The appropriate care of classroom pets. - Non-invasive measurement of body weight, body condition by visual assessment or condition scoring, growth, body proportions, pulse or blood flow, respiration, skin temperature (non-invasive), age by dentition, scrotum and testicles (palpation). - Familiarisation activities. - Administering water as a treatment. - Collection of wool, milk, faeces or urine samples (non-invasive). - Administering a topical treatment to the udder. - Coat care and grooming. - Tail tagging. - Animals on loan from the Nature Education Centre. (Note : the NEC will report directly to the Animal Ethics Committee on the number of animals loaned so schools should not include them in their returns) **Category 3: School Principal may <u>NOT</u> delegate** Activities requiring Category 3 approval - Category 3 comprises many routine techniques but none which requires the breaking of skin or any blood loss (e.g. blood samples, ear tagging etc). - Non-invasive measurement of body condition by ultrasound - Measurement of mild dietary effects (provided the normal nutritional needs for the life stage of the animals are met), high/normal protein, high/normal energy, high/normal fat, palatability - Taming/gentling. - Training for competition or showing. - Tethering animals. - Collection of saliva. - Measurement of body temperature (invasive). - Administering topical treatment by backline, spray or dip. - Administering drench or capsules orally. - Coat clipping. - Hoof paring: sheep and goats. - Shearing of sheep and goats. - Milking - Loading and unloading animals onto transporters. - Showing animals at school and away. - Jetting animals. - Restraining with ropes. - Pregnancy detection by external ultrasound. - Horn tipping. **Category 4: Animal Ethics Committee approval is required** Activities requiring Category 4 approval - Category 4 comprises many routine husbandry techniques which have the potential to be painful or distressing to the animal. - Administering intraruminal, subcutaneous or intramuscular injections. - Administering winged capsules orally. - Administering intravenous injections or intrauterinepessaries. - Ear marking/tagging of livestock. - Tattoo application.

	Oestrus synchronisation. Microchip tagging. Dehorning cattle under six months of age.
	Commercial activities(for example growing turkeys for commercialsale) **Category 5: Animal Ethics Committee approval is required** Activities requiring Category 5 approval - Category 5 comprises many husbandry techniques which have the potential to be painful or distressing to the animal and require a level of expertise or supervision to ensure that adverse events do not occur. Collection of faeces, ruminal fluid or blood (invasive). Freeze branding of cattle and horses. Artificial insemination. Semen collection.
Authority:	**Government Schools** – Department for Education Animal Ethics Committee **Independent and Catholic Schools** - Non Government Schools Animal Ethics Committee
Authority Approval Date:	1 August 2010

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Licensing Requirement:	Not applicable
Compliance Requirement:	The keeping of this species requires approval from the School Principal or the AEC. It is recommended that this Standard Operating Procedure be followed as a minimum in the provision of appropriate care and housing for this species.

General Information:	Breeds commonly used in Australia can be divided into the following categories: • fibre production, including Angora and Cashmere; • milk production, including Anglo-Nubian, British Alpine, Toggenburg and Saanen; • meat production, including Condobolin and Boer-feral and Boer-Cashmere crosses; Boer goats imported from South Africa are becoming increasingly popular for crossbreeding in Australia. • **Movement:** There are a number of restrictions on the movement of goats. To ensure that the appropriate legislation is followed, contact PIRSA Primary Industries and Resources SA.
Physical Attributes:	• **Size:** at the withers, dairy goats 790 mm-950 mm (does 790 mm-930 mm, bucks 900mm-950 mm) Angoras 500 mm-650 mm (does 500 mm-550 mm, bucks 600 mm-650 mm) • **Weight:** adult males 50 kg-100 kg, adult females 50 lg-85 kg • **Age at adult size:** 18-24 months • **Average life span:** 8-15 years • **Weight at birth:** 1.5 kg-4kg • **Gestation period:** 150 days, range 145-155 • **Number of offspring:** 1-3. Twins are common, triplets rare. 150% - 180% kidding rates are not uncommon • **Weaning age:** 3-6 months • **Range of breeding ages:** sexual maturity is closely related to growth rate and size. Average age for a buck is 6-7 months and for a doe7-8 months. Animals should not generally be bred until 15-18 months of age. • **Body temperature:** 39°C (+/- 0.5°C) • **Heart rate:** 70-90 beats/minute • **Respiration rate:** 12-30 breaths/minute
Behaviour:	Goats are agile, alert and observant. They will seek shelter from rain and avoid waterlogged areas. Generally, goats have leaders and are not aggressive unless provoked. Kids play together.

Environment:	Goats perform well in open pastures that have plenty of water available and shelter from wind, rain and sun. As they are agile animals, goats should have enough space to be able to run. Kids are very playful and can be discouraged from climbing into feed bins by providing them with something else to climb on. If goats are housed intensively, each pen should be designed to hold no more than three or four goats and provide an area of at least 2.25 m2 per animal. Fences should be at least 1 200 mm high. Ensure they are secure, as some breeds of goat are prone to going under or through fences. Avoid fencing in which goats can
	catch their legs. Goats are particularly prone to attempting to escape when they are stressed: for example, when they are separated from the rest of the flock and at weaning time. Goat paddocks must provide adequate protection from predators. Goats do not like cold, wet conditions. They are more easily stressed by cold than sheep or cattle, as they have less fat under the skin. Newborn kids and Angoras after shearing are particularly susceptible. Shelter is essential to provide shade and protection from cold, wet weather. While goats will seek shelter from rain, they may kid in the open on frosty nights. When kidding is imminent, goats should be confined overnight. Air circulation in sheds must be adequate to prevent humidity, dampness and a build-up of ammonia. Pens should be cleaned daily. If goats are to be housed for lengthy periods, wooden slatted floors, with effective sub-floor and room ventilation, are best. They allow easy cleaning of pens. Feed bins should be off the ground and automatic waterers, which supply clean, fresh water at all times, must be installed and checked daily. Clean, dry straw or wood shavings should be provided for bedding. As these types of bedding need to be kept clean and dry, it is essential that they be inspected and replaced regularly.

Feeding:	Goats are considered to be browsing animals and, given the choice, will obtain 40 per cent of their food in this way. They prefer longer pastures than sheep and will not graze as closely. Pasture species required are generally the same as those for sheep, but goats will avoid many clovers. Dairy breeds require a supplement of nutritious feed, such as crushed oats, some barley or goat mixes, if they are to produce well. Good nutrition is particularly important for young, actively-growing goats and for does during the last six weeks of pregnancy and when they are lactating. When feeding goats by hand, the rule is to introduce new food types slowly and carefully. Feed plenty of high-quality roughage and feed small amounts at frequent intervals. Do not feed excessive quantities of grains. Fresh, clean water should be readily accessible. Monitoring of live weight and condition scoring will indicate the adequacy of the feed conditions. Young kids are suckled or fed milk replacements. For older goats, grazing and browsing are the most economical. Supplementary feeding with hay and concentrate mixes may be necessary. Local veterinarians or the department of Agriculture officer should be consulted to determine whether there is a need for specific supplementation. The quantity of food required varies with the animals' weight, stages of growth and stages of production. If there is no browsing available, the carrying capacity of pasture for goats is similar to that for sheep. As twins and triplets are not uncommon, it is important to ensure that during the last third of their pregnancies, does receive progressively more nutrition. Hay and pasture should be freely available. For dairy animals, concentrates should be fed at each milking and, for others, once per day. Kids can have free access to the does. Newborn kids must get colostrum in the first 24 hours. If goat colostrum is not available, sheep or cow colostrum may be used. However, as adverse reactions to the latter have occurred, care is needed. When hand-rearing kids, ensure that all bottles and feed-mixing equipment are washed thoroughly and sterilised after feeding. Scrub equipment thoroughly with detergent, sanitise it with a commercial sanitiser such as Milton® and then store the equipment in a way that prevents recontamination. As an extra precaution, sanitise equipment before use. Advice should be sought from PIRSA Primary Industries and Resources SA for suitable milk replacements and feeding schedules for kids. A clean, fresh continuous supply of water should be provided at all times. Water must be clean, as goats may refuse to drink contaminated water. The float mechanisms in troughs should be protected to ensure that goats do not damage them.
Disease prevention:	Disease control methods and internal and external parasite control programs should be developed in consultation with veterinarians or PIRSA Primary Industries and Resources SA. Treatments must be documented in the appropriate records. For information on diseases contact the Animal Disease Hotline 1800 675 888.
Breeding:	
Handling:	Goats need to be handled calmly and with care to prevent distress and injury to the animals and the handlers. They should be picked up by the body, never by the horns or fleece. Kids can be caught by putting hands around their bodies. Catching by the legs can cause dislocation of joints. A simple, small version of a cattle-type bail can be used for all purposes, including hoof trimming, washing and milking. A simple collar can be used for milking. Most sheep equipment can be used for goats. Shearing Cashmeres involves using a simple collar restraint, while Angoras are held in the same way as sheep. Goats kept in schools and colleges learn routines quickly and respond to food incentives.
Hygiene:	

Signs of illness:	Stock health should be monitored at least daily, and preferably more often. The first sign of ill-health noticed is often a change in the animals' natural demeanour. They may be listless or lethargic. Closer examinations may show: • disorientation; • lethargy; • changed feeding habits; • scouring; • nervousness; • nasal or ocular discharge; • separating from, or lagging behind, the main body of the flock; • lameness; • ill-thrift or wasting; or • an abnormal gait or a reluctance to rise. A failure to thrive or grow is another sign of illness. Common ailments include mastitis, bloat, internal parasites or milk fever.
Treatments:	If you are unable to identify and correct the cause of ill- health, seek the assistance of veterinarians who are familiar with goats. Treatments must be documented in the appropriate records.
Euthanasia:	When an illness or injury is such that recovery is unlikely then the animal must be euthanased by a veterinarian. Any death must be reported to the Animal Ethics Committee using the appropriate form (see section relating to ADVERSE EVENTS). Forms are available on the relevant websites – see contact details below.
Disposal/fate planning:	Goats be sold privately, at auction or consigned to abattoirs. Carcasses must be disposed of in accordance with local council regulations.
Holiday and weekend care:	Goats need to be monitored, checked and fed regularly over weekends and holiday periods.
Approved activities:	Observation, breeding, farming
Resources:	
Websites:	www.pir.sa.gov.au www.agric.wa.gov.au www.ansi.okstate.edu https://www.library.sydney.edu.au/
Texts:	Coleby, P. (2000). *Natural Goat and Alpaca Care* (second ed.). CSIRO Publishing. CSIRO (1991). *Model Code of Practice for the Welfare of Animals*: The Goat. Prendergast, M. (1981) *A Guide to Keeping Goats in Australia*, Thomas Nelson, Australia.
Contact:	**Department for Education Animal Ethics Committee** https://edi.sa.edu.au/educating/programs-initiatives/animal-ethics Phone: 8463 5986 Email: education.animalethics@sa.gov.au

AEC STANDARD OPERATING PROCEDURES

SOP No:	**11**
SOP	**Green Tree Frog**
Scientific Name:	***Litoria caerulea***
Category:	**2 or 3**
Approval Level:	**Category 2: School Principal may delegate** Activities requiring Category 2 approval - Observation of particular animal behaviours, e.g. oestrus, parturition - School performance by outside agencies that have animals as part of their exhibits - Organisations bringing animals to school (such as Delta Society programs, RSPCA or PetPep). - Breeding of mice or other appropriate animal in the classroom. - The appropriate care of classroom pets. - Non-invasive measurement of body weight, body condition by visual assessment or condition scoring, growth, body proportions, pulse or blood flow, respiration, skin temperature (non-invasive), age by dentition, scrotum and testicles (palpation). - Familiarisation activities. - Administering water as a treatment. - Collection of wool, milk, faeces or urine samples (non-invasive). - Animals on loan from the Nature Education Centre. (Note : the NEC will report directly to the Animal Ethics Committee on the number of animals loaned so schools should not include them in their returns) **Category 3: School Principal may <u>NOT</u> delegate** Activities requiring Category 3 approval - Category 3 comprises many routine techniques but none which requires the breaking of skin or any blood loss (e.g. blood samples, ear tagging etc). - Non-invasive measurement of body condition by ultrasound - Measurement of mild dietary effects (provided the normal nutritional needs for the life stage of the animals are met), high/normal protein, high/normal energy, high/normal fat, palatability - Taming/gentling. - Collection of saliva. - Measurement of body temperature (invasive). - Showing animals at school and away.
Authority:	**Government Schools** – Department for Education Animal Ethics Committee **Independent and Catholic Schools** - Non Government Schools Animal Ethics Committee
Authority Approval Date:	1 August 2010

Disclaimer:	*This document may be updated at any time. You should check the web site regularly to ensure that you are meeting the most recent recommendations. If you note any concerns with the information provided (inadequate, incorrect) please contact the relevant AEC (Refer to bottom of Standard Operating Procedure).*
Licensing Requirement:	Not applicable
Compliance Requirement:	The keeping of this species requires approval from the School Principal. It is recommended that this Standard Operating Procedure be followed as a minimum in the provision of appropriate care and housing for this species.

General Information:	Green tree frogs are common across the top of Australia and down the east coast as far south as Sydney. Small numbers are also encountered in the far northeast corner of South Australia. They live in a wide variety of habitats provided a permanent supply of fresh water is nearby. They are often found in outhouses and along roadsides following rain. The frogs appear to be attracted to artificial lighting where their flying and crawling prey gathers. Frogs must not be collected from the wild. They can be obtained from pet stores. They are cold-blooded amphibians. To warm themselves they may bask in the sun or lie on heated surfaces. To cool they may burrow, hide under vegetation or enter water. Amphibians can live on both land and in water. As an amphibian they go through a lifecycle change – eggs – tadpoles – frogs. Green tree frogs are common across the top of Australia and down the east coast as far south as Sydney. Small numbers are also encountered in the far northeast corner of South Australia. They live in a wide variety of habitats provided a permanent supply of fresh water is nearby. They are often found in outhouses and along roadsides following rain. The
	frogs appear to be attracted to artificial lighting where their flying and crawling prey gathers. Frogs must not be collected from the wild. They can be obtained from pet stores. They are cold-blooded amphibians. To warm themselves they may bask in the sun or lie on heated surfaces. To cool they may burrow, hide under vegetation or enter water. Amphibians can live on both land and in water. As an amphibian they go through a lifecycle change – eggs – tadpoles – frogs.
Physical Attributes:	• **Size (adult):** 6-7cm for females and 6-11cm for males. • **Weight (adult):** Varies with size. • **Life span:** 10-20 years • **Gestation period:** Generally breed in Nov – Feb. Lay eggs, which go from tadpoles to frogs in 6 weeks. • **Number of offspring:** between 200 – 2,000 eggs
Behaviour:	• **Normal:** Frogs should not be placed with other species in terrariums. They are nocturnal and therefore more active during the night. • **Socialisation:** They can be cannibalistic when different sizes of frogs are grouped together or if they are underfed. • **Activity levels (hibernation etc):** They will be slow and sluggish during the day and tend to rest away from the daylight.

Environment:	• **Space:** The following list of equipment is required to provide basic housing for one or two green tree frogs. ○ all glass or plastic aquarium/terrarium - tall enough to grow plants (minimum 600mm x 400mm) ○ 20mm layer rocks or coarse gravel for drainage ○ 20mm layer crushed coarse charcoal to absorb odours ○ 50+mm potting soil for the plants ○ plants suitable for terraria ○ stones/pebbles/logs to create habitat ○ water dish or small pond ○ steep-sided dish or plastic lid for live food ○ light eg Grolux or incandescent for plant growth ○ close-fitting, well-ventilated lid ○ heat source ie aquarium heater or light globe. ○ A layer of leaf litter, rocks or gravel on top of the potting mix will prevent it from adhering to the frog's skin. ○ Remember over-crowded terraria only placed undue stress on its occupants. • **Movement:** Frogs will succour to the glass, plants and items in the terrarium. They will tend to spend long periods in the same spot. • **Water:** Green tree frogs occur near permanent water in some of the driest parts of arid Australia. It is therefore not important to maintain a high humidity. A fresh bowl of clean water and enough moisture in the soil to keep the plants alive is all that is required. Allow water to stand for ½ day to allow chlorine to evaporate before use. • **Temperature:** There are many different approaches to designing terraria for frogs, many of which are suitable. There are however a few important factors that must be considered. Under normal conditions an absolute minimum daytime temperature of 27oC is required. However, short periods of cooler temperatures, such as overnight, are tolerated. Longer periods of low temperatures can also be endured if the frogs are not fed or disturbed and a recess site is provided during this time. This does however, place the frogs under stress and unhealthy frogs may succumb to disease. There are a number of ways to maintain a warm environment for the frogs. A plain incandescent globe mounted on the inside of the terrarium is an effective source of heat and light. A false back in a terrarium filled with water and heated with an aquarium heater can also be effective. Fixing sheets of polystyrene or thick cardboard on the back and sides of the terraria helps to retain heat and the warm glass provides a suitable position for the frog to rest. A wire cover should protect high wattage globes, over 60W. • **Ventilation:** Adequate ventilation is important to maintain healthy frogs. Build up of harmful gasses from decomposing faeces can be very rapid in a poorly ventilated cage. A balance needs to be obtained to allow adequate ventilation while maintaining warmth and at the same time preventing the terrarium from becoming saturated from excess moisture. • **Lighting:** A source of light, which includes some ultra violet (UV) light, is important in maintaining plants and healthy frogs. Incandescent light globes provide only a small amount of UV light. Some of the commercially available UV

	lights are considered to be very good when used in conjunction with an incandescent globe. However, by far the best source of UV light is natural sunlight. Placing the terraria near a well-lit window can be beneficial to the frogs and the plants, however do not leave them directly in front of glass doors or windows as overheating may occur. Glass is an efficient filter of UV light so any artificial sources of light should be mounted directly in the terraria. • **Covering:** There must be a cover over the terrarium to protect frogs from external harms and to prevent them from escaping. Mesh top or part solid/ part mesh are good and help with ventilation and moisture control. • **Shelter:** The aquarium should provide an area for refuge from lights, action and other frogs. This can be created with plants and rocky overhangs. • **Cleaning:** A well-established and maintained terrarium will need little disruption for cleaning. If plants die they should be removed and replaced. Water dishes must be cleaned and refilled daily. A larger water source is necessary for weekend and holiday periods to allow for every second day checks. Uneaten food or dead insects should be removed. Any filters fitted should be cleaned regularly.
Feeding:	• **Diet:** Small mice, cockroaches, grasshoppers, mealworms, slaters, moths and worms are all suitable foods. Most frogs prefer live food, however, you may be able to coax a frog into taking non-living food by simply wriggling it on the end of a pair of blunt ended forceps. A varied diet is very important so a breeding culture of some of the above need to be kept. • **Daily requirements:** Feeding response in green tree frogs tends to be stimulated by movement. This can be used to your advantage as particularly fussy frogs can sometimes be persuaded to eat by supplying them with fast moving or flying food. Green tree frogs are nocturnal, consequently they are more likely to eat if fed in the late afternoon. Feeding should occur 2-3 times a week. Tadpoles would need daily feeding. Remember green tree frogs will eat anything that is small enough to fit into their mouth, including other frogs and tadpoles. • **Supplementary feeding:** There are excellent reptile supplements available in a powder form, which can be used to dust mealworms to help ensure that the frog is getting all the correct requirements. Most types of frogs relish flies and it can be entertaining to watch the frogs trying to catch them. They may be purchased from a fishing bait shop as maggots or, alternatively, you can breed your own. About two weeks later, depending on temperature, flies may emerge and crawl through holes in the containers lid to be eagerly gobbled up by the waiting frogs. Never use insects that have been killed with insecticide spray. • **Equipment**: Blunt ended tweezers can be used to hold food if required.
Breeding:	• **Mating:** Males can usually be identified by dark pads on the insides of their thumbs. Green tree frogs are difficult to breed in captivity. • **Pregnancy:** Females lay 1,000 of eggs at a time. • **Fate planning:** Breeding stock must be re homed. They must NEVER be released into the environment.
Handling:	• **Human:** Always wash and wet hands before picking up frogs (do not use soaps or chemicals), as their skin is sensitive. If showing to a class, try grasping the frog by straightening the back legs and enclosing them in the palm of your hand. Only apply as much pressure as is necessary and prevent the frog from tipping backwards by tilting the fist slightly forward. Once the legs are held straight and firm, the frog usually stops struggling and can sometimes be encouraged to croak. Handling should be kept to a minimum as it only places extra stress on the frogs. Always wash your hands after handling a frog as they secrete a number of chemicals from their skin that may be harmful to some people. • **Equipment:** Wet hands free from soaps or chemicals. • **Transporting:** Use small moist and ventilated containers. Do not leave for long periods in heat or cold conditions. Do not transport on days that are over 32 degrees. • **Children:** Should not handle frogs only touching a frog when hands are clean and wet. Observation only.
Hygiene:	Thoroughly wash hands with soap and running water for at least 10-15 seconds after working or handling any animals. Dry hands with clean paper, cloth towel or air dryer. Turn off the tap with the paper towel if possible.
Signs of Illness:	**Indicators: General** – not eating, listless, sores, trouble moving, colour changes • Small white spots on the frog's skin are normal but a change from green to brown can be a sign of distress from diseases, handling, or a poor environment (although camouflage can also play a role in colour changes). A clean supply of

	fresh water must be available at all times. In hot weather frogs can desiccate in less than 24 hours without access to water. • Polluted water can often lead to an infection of the eye. This appears as a cloudy haze over the pupil. It can be overcome by bathing the eye twice daily in a saline eye wash solution and keep them in a warm environment (+33oC). • If temperatures are too low for a day or two after frogs have been fed a large meal they may regurgitate what they have eaten. • Red Leg (*Aeromonas sp*.) is probably the most common disease encountered in captive frogs. It can be fatal, however, if symptoms are recognised early many frogs recover with no ill effects. Red Leg is generally caused by some type of stress - Over crowding, poor hygiene, extended periods at low temperatures while frogs are active and being fed, all cause stress that can lead to the onset of Red Leg symptoms. Red Leg in green tree frogs appears as a reddening of the inner thighs, a dull lustre to the skin, often remaining inactive on the bottom of the cage, refusing food with a dirty brownish colour to the belly. Individuals with Red Leg should be isolated immediately and placed in a small container with half a centimetre of water in the bottom. The lid should have a few small holes for ventilation. Place the container in an area that provides a constant temperature of about 33^{o}C. Change the water regularly and do not feed (frogs can survive long periods without food). It may take a few weeks for the frog to respond and while this is not always successful there is a high rate of success with even serious cases. • Rickets is a bone disease that is also a common problem, particularly when frogs have not been maintained under the right conditions from a small age. It can easily be recognised by the posture of a frog. The rear legs become soft and bowed, they lose the ability to jump large distances and struggle to climb vertical surfaces. A poor diet and a lack of UV light are the primary causes. The faster a frog grows the more susceptible it becomes to rickets and the more important it becomes that the correct resources be maintained.
Treatments:	Assistance from a veterinarian should be sought for confirmation of conditions and treatment options. Treatments must be documented in the appropriate records.
Euthanasia:	When an illness or injury is such that recovery is unlikely then the animal must be euthanased by a veterinarian. Any death must be reported to the Animal Ethics Committee using the appropriate form (see section relating to ADVERSE EVENTS). Forms are available on the relevant websites – see contact details below.
Disposal/fate planning:	When no longer required frogs must be re homed. They must NEVER be released into the environment and waterways. Bodies must be disposed of correctly in accordance with local council regulations.
Holiday and weekend care:	**As they require specific conditions they would not cope** well with being rostered to family carers. They need to be checked and fed regularly over weekends and holiday periods. An established terrarium with adequate light will be self-contained for several weeks. A single frog may need little attention during short holiday breaks. Like many cold-blooded creatures, green tree frogs can survive for extended periods without food. But, **remember**, a single day without access to water can be detrimental so they must be checked regularly (minimum of once every two days).
Approved activities:	Observation
Resources:	
Websites:	www.frogs.org.au www.epa.sa.gov.au www.FATS.org.au
Texts:	Banks, C (1980) *Keeping Reptiles and Amphibians as Pets*, Nelson. Tyler, M.J. (1978) *Amphibians of South Australia*, Government Bookshop. Tyler, M.J. (1989) *Australian Frogs*. Viking O'Neil, Melbourne. White, A. (1990) *In Care and Handling of Australia Native Animals*, Ed. S.J. Hand. Surrey Beatty and Sons, Sydney. Gray, A. (2000) *Keeping Amphibians* Harper Collins Publishers. Hoffman Satterfield, K (2006) *Frogs.* Harper Collins Publishers.
Contact:	**Department for Education Animal Ethics Committee** https://edi.sa.edu.au/educating/programs-initiatives/animal-ethics Phone: 8463 5986 Email: education.animalethics@sa.gov.au

AEC STANDARD OPERATING PROCEDURES

SOP No:	**12**
SOP	**Guinea Pigs**
Scientific Name:	***Cavia porcellus***
Category:	**2 or 3**
Approval Level:	**Category 2: School Principal may delegate** Activities requiring Category 2 approval - Observation of particular animal behaviours, e.g. oestrus, parturition - School performance by outside agencies that have animals as part of their exhibits - Organisations bringing animals to school (such as Delta Society programs, RSPCA or PetPep). - Breeding of mice or other appropriate animal in the classroom. - The appropriate care of classroom pets. - Non-invasive measurement of body weight, body condition by visual assessment or condition scoring, growth, body proportions, pulse or blood flow, respiration, skin temperature (non-invasive), age by dentition, scrotum and testicles (palpation). - Familiarisation activities. - Administering water as a treatment. - Collection of wool, milk, faeces or urine samples (non-invasive). - Animals on loan from the Nature Education Centre. (Note : the NEC will report directly to the Animal Ethics Committee on the number of animals loaned so schools should not include them in their returns) **Category 3: School Principal may <u>NOT</u> delegate** Activities requiring Category 3 approval - Category 3 comprises many routine techniques but none which requires the breaking of skin or any blood loss (e.g. blood samples, ear tagging etc). - Non-invasive measurement of body condition by ultrasound - Measurement of mild dietary effects (provided the normal nutritional needs for the life stage of the animals are met), high/normal protein, high/normal energy, high/normal fat, palatability - Taming/gentling. - Collection of saliva. Measurement of body temperature (invasive). Showing animals at school and away.
Authority:	**Government Schools** – Department for Education Animal Ethics Committee **Independent and Catholic Schools** - Non Government Schools Animal Ethics Committee (NGSAEC)
Authority Approval Date:	1 August 2010

Disclaimer:	*This document may be updated at any time. You should check the web site regularly to ensure that you are meeting the most recent recommendations. If you note any concerns with the information provided (inadequate, incorrect) please contact the relevant AEC (Refer to bottom of Standard Operating Procedure).*
Licensing Requirement:	Not applicable
Compliance Requirement:	The keeping of this species requires approval from the School Principal. It is recommended that this Standard Operating Procedure be followed as a minimum in the provision of appropriate care and housing for this species.

General Information:	Guinea pigs are rodents from South American origin. Sometimes referred to as Cavies. They occur in family groups sometimes in large colonies with burrow systems. They are highly vocal emitting a range of purrs, squeals, squeaks, and grunts. They are vegetarian. Three types exist English – short hair, 3-4cms, Abyssinian – short hair with raised rough rosettes and Peruvian – longhair 15cm. All three come as single colours, bi (2) or tri (3) coloured including white, cream, ginger, red, brown or black. They have 3 digits on their hind limbs and 4 digits on their front limbs.

Physical Attributes:	• **Size (adult):** 15cm in length • **Weight (adult):** 700 -900gms for females and 900 -1200gms for males • **Life span:** 4 -6 years • **Sexual maturity:** Males 4 months, females 3 -4 months • **Gestation period:** An average of 60 -70 days. • **Number of offspring:** Anywhere from 1 -10, average is 4 -5. Have 3 -5 litters per year. At birth they are fully mobile within 1 hour, eyes open, fur, full teeth set and weigh 100gms.
Behaviour:	• **Normal:** Guinea pigs tend to spend a lot of time hiding. As they mature they like set environments and handling. When things move or change they can become stressed and agitated and freeze their movement for lengthy periods of time. • **Socialisation**: They are used to living in groups. One male to 3-6 females if breeding is required. Groups of single sex are fine together from a young age. • **Activity levels (hibernation etc):** They are very busy when young but become less active as they mature. They are very messy, shredding straw and paper.
Environment:	• **Space:** Guinea pigs can have a variety of cages and sizes depending on the number kept. Outdoors they need part solid and part grazing area hutch. Adult animals need 1sq metre space per adult. A part wire base allows them to graze on lawn/grass areas. For 2 Guinea pigs a cage should be 1500mm in length and 800mm in height and width. • **Movement:** Guinea pigs not raised in wire hutches can break their legs when first placed in wire floored hutches. They can stampede if agitated and injure themselves. • **Water:** Fresh clean water must be available daily for drinking. • **Temperature:** Outdoor hutches should be out of direct sunlight and shaded. They should be free from strong winds and weather. They require part of the hutch to be weather proof. In hot periods they should be placed under verandas. Indoor hutches should not be placed in direct sunlight and be free from draughts, fumes and away from heaters. Indoor hutches without a roof should be a minimum of 400mm in height. • **Lighting:** Natural lighting inside and outside is sufficient. • **Covering:** All outdoor hutches, cages and enclosures must be roofed to prevent attacks from predators. • **Shelter:** They must have an enclosed area (with no viewing) to retreat to. • **Cleaning:** As they are extremely messy they require daily clearing and weekly cleaning. Food containers must be cleaned daily and heavily soiled materials removed daily. Weekly all the paper, bedding straw, should be removed. The area can be cleaned with a detergent and hot water or a very mild disinfectant. Sufficient bedding straw material should be provided to allow them to tunnel and burrow under.
Feeding:	• **Diet:** Guinea pigs require a balanced diet of commercial guinea pig pellets, hay and fresh produce (carrots, lettuce, grass, kale, spinach, corn, cucumber, green feed, pumpkin, broccoli, apples, pear, oranges etc). They are fussy eaters and may refuse to eat or drink if food and containers are changed. Pellets should be stored for no more than 60 days. • **Daily requirements:** They should be fed twice a day. They need 6gms food per 100gms body weight and 80ml of water. • **Supplementary feeding:** Guinea pigs need a supply of vitamin C in their diet (10-30mg/kg/day). Regular greens (like kale, broccoli, brussel sprouts) and fresh pellets will assist with this. Alternatively, vitamin C powder (i.e. Value Plus Vitamin C powder) can be added to water at a rate of 200mg per litre. • **Equipment:** Water sipper with the capacity for ½ to 1 litre of water. A pellet hopper holding sufficient pellets throughout the day. When bowls are used be aware that they will spill them and defecate and urinate in them continuously, so they will need constant cleaning and replacing.
Breeding:	• **Mating:** Males are sexually active from 3 months and will breed with any available female after each litter is born. • **Pregnancy:** Females must be allowed to have their first litter before 6 months of age. If they are bred after this time they may not be able to give birth naturally as their pelvis can fuse. Females can continue to provide litters. The first pregnancy will take 9 weeks those following quickly after birth will take 9-11 weeks. • **Fate planning:** Breeding stock must be re homed. As an introduced species they must NEVER be released into the environment.

Handling:	• **Human:** Guinea pigs can be handled gently and calmly to prevent distress and injury. They rarely bite or scratch but may do so if frightened. • **Equipment:** They can be wrapped in a towel if required when handling. • **Transporting:** They can be carried in well-ventilated carry boxes or cages that provide a place for them to hide. Transport quickly and do not leave unattended or allow them to heat. Do not transport on days that are over 32 degrees. • **Children:** Young children should not handle Guinea pigs. Observation only. Younger children could pat them on the back while an adult holds them. With
	older children only one student should handle an animal in any one session. They should be lifted by grasping them gently but firmly under the chest with one hand, while supporting the rear quarters with the other hand. They should be placed gently onto the ground not dropped down.
Hygiene:	• **Human:** Guinea pigs can be handled gently and calmly to prevent distress and injury. They rarely bite or scratch but may do so if frightened. • **Equipment:** They can be wrapped in a towel if required when handling. • **Transporting:** They can be carried in well-ventilated carry boxes or cages that provide a place for them to hide. Transport quickly and do not leave unattended or allow them to heat. Do not transport on days that are over 32 degrees. • **Children:** Young children should not handle Guinea pigs. Observation only. Younger children could pat them on the back while an adult holds them. With older children only one student should handle an animal in any one session. They should be lifted by grasping them gently but firmly under the chest with one hand, while supporting the rear quarters with the other hand. They should be placed gently onto the ground not dropped down.
Signs of illness:	**Indicators:** loss of appetite, hair loss, diarrhoea, discharges, infections, coughing, gasping, growths, hair loss, scratching, limping, dribbling, and lice.
Treatments:	• Assistance from a veterinarian should be sought for confirmation of conditions and treatment options. • Lice are common wherever there is considerable exchange of animals and veterinary advice should be sought as to the most appropriate treatment. • Vitamin C deficiency and/or wet cage floors will cause swelling and soreness of the feet. Vitamin C deficiency can also be the cause of hair loss and skin problems.
Euthanasia:	When an illness or injury is such that recovery is unlikely then the animal must be euthanased by a veterinarian. Any death must be reported to the Animal Ethics Committee using the appropriate form (see section relating to ADVERSE EVENTS). Forms are available on the relevant websites – see contact details below.
Disposal/fate planning:	When no longer required Guinea pigs must be re homed. As an introduced species they must NEVER be released into the environment. Bodies must be disposed of correctly in accordance with local council regulations.
Holiday and weekend care:	Guinea pigs generally cope with being rostered to responsible carers. They need to be checked and fed regularly over weekends and holiday periods if they remain on site or if they are housed outside. Records must be kept of 'off site' care. Hutches and feeding equipment and supplies must be provided to carers, with contact details for emergencies.
Approved activities:	Observation
Resources:	
Websites:	www.rspca.org.au www.petplace.com
Texts:	Axelrod, J. (1980) *Breeding Guinea Pigs* TFH Publications England. Ross, V. (2002) My first Guinea Pig Thameside Press. Coppendale, J. (2004) *You and your pet Guinea Pig* QED Publishing. Maisner, H. (2007) *Me and my pet Guinea Pigs* Oxford Uni Press. Boyer Binns, T. (2006) *Keeping Guinea Pigs* Harcourt Education Ltd. Hibbert, C. (2004) *Looking after your pet Guinea Pig* White-Thomson Pub Ltd. Loves, J. (2003) Pets – *Guinea Pigs and Rabbits* Macmillan Education Australia Pty Ltd.

Contact:	**Department for Education Animal Ethics Committee** https://edi.sa.edu.au/educating/programs-initiatives/animal-ethics Phone: 8463 5986 Email: education.animalethics@sa.gov.au

AEC STANDARD OPERATING PROCEDURES

SOP No:	**13**
SOP	**Hermit Crabs**
Scientific Name:	***Coenobita variabilis***
Category:	**2 or 3**
Approval Level:	**Category 2: School Principal may delegate** Activities requiring Category 2 approval - Observation of particular animal behaviours, e.g. oestrus, parturition - School performance by outside agencies that have animals as part of their exhibits - Organisations bringing animals to school (such as Delta Society programs, RSPCA or PetPep). - Breeding of mice or other appropriate animal in the classroom. - The appropriate care of classroom pets. - Non-invasive measurement of body weight, body condition by visual assessment or condition scoring, growth, body proportions, pulse or blood flow, respiration, skin temperature (non-invasive), age by dentition, scrotum and testicles (palpation). - Familiarisation activities. - Administering water as a treatment. - Collection of wool, milk, faeces or urine samples (non-invasive). - Animals on loan from the Nature Education Centre. (Note : the NEC will report directly to the Animal Ethics Committee on the number of animals loaned so schools should not include them in their returns) **Category 3: School Principal may <u>NOT</u> delegate** Activities requiring Category 3 approval - Category 3 comprises many routine techniques but none which requires the breaking of skin or any blood loss (e.g. blood samples, ear tagging etc). - Measurement of mild dietary effects (provided the normal nutritional needs for the life stage of the animals are met), high/normal protein, high/normal energy, high/normal fat, palatability - Taming/gentling. - Collection of saliva. - Measurement of body temperature (invasive). - Showing animals at school and away.
Authority:	**Government Schools** – Department for Education Animal Ethics Committee **Independent and Catholic Schools** - Non Government Schools Animal Ethics Committee (NGSAEC)
Authority Approval Date:	1 August 2010

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Licensing Requirement:	Not applicable
Compliance Requirement:	The keeping of this species requires approval from the School Principal. It is recommended that this Standard Operating Procedure be followed as a minimum in the provision of appropriate care and housing for this species.

General Information:	Hermit crabs are omnivorous crustaceans. They are best sourced through pet shops and the only species that should be sold are the Australian Land Hermit Crab. Most are marine creatures and require salt-water habitats however land hermit crabs are from further inland. Australia has two species of Land Hermit Crab. They are found in mangroves, sandy and rocky beaches. Remember all pet crabs have been collected and removed from their wild habitat. They have a large left pincher claw for defence, balance and climbing. The right smaller claw is for moving food and water to their mouth.

Physical Attributes:	• **Size (adult):** Crabs continue to grow and need larger shells to habit. They average 1-6cm. • **Weight (adult):** Varies with age and size. • **Life span:** Captivity up to 15 years. In nature up to 30 years • **Sexual maturity:** Adults. • **Gestation period:** Lay eggs shortly after fertilisation but can hold the sperm for several months. • **Number of offspring:** Larvae hatch in the shallows and develop into small crabs before looking for a shell to inhabit and move ontoland.
Behaviour:	• **Normal:** They are nocturnal and therefore more active during the night. • **Socialisation:** Hermit crabs can live in colonies but only keep a few in the tank. • **Activity levels (moulting etc):** They shed their exoskeleton and grow a new one. This moulting occurs every 2 –18 months depending on their age, size and habitat. During this time they are very vulnerable and will bury themselves in the sand. It takes up to 10 days for the new exoskeleton to harden. They often consume the old skeleton. As they grow they need to replace their host shell. They require a shell that fits their whole body and allows for room to grow. This also assists with moisture management. They will not change if no suitable shell is available and may fight if there are not enough shells.
Environment:	• **Space:** You will need an aquarium 45cm x 30cm x 30cm. There should be a gravel base. Dish of water they can crawl into and out of easily. A number of hollow shells larger than the one they are in. • **Movement:** Crabs can move quickly. They extend their legs outside the host shell and scuttle along. • **Water:** Keep water available at all times. Use tap water that has been allowed to stand for ½ day. • **Temperature:** Tanks should not be exposed to direct sunlight. Where heat waves occur and cooling is difficult to maintain spray the inside of the tank with water to keep up the humidity. Hermit crabs die if the temperature is too cold or too hot. Maintain a temperature between 20-30oC. • **Filtration:** Not necessary • **Lighting:** A globe should be provided. The globe should be on if the day temperature is below 25oC or the night temperature is below 20oC. The globe must not be used if the day temperature exceeds 30oC. • **Covering:** Where the hermit crabs are at risk from younger children and to assist with heating, cooling and humidity the tank should be covered. • **Shelter:** The aquarium should provide an area for refuge from lights, action and other crabs. This can be created with plants and rocky overhangs. • **Cleaning:** Regular removal of food waste is required. To clean the whole tank, remove and place the crabs in a secure container. Rinse the tank carefully and fill again with gravel and items. Do not use chemicals. Rinse gravel through thoroughly.
Feeding:	• **Diet:** In the wild they eat vegetable matter and carrion. Use hermit crab pellets, meat yabbie pellets, oats, mouse and guinea pig pellets can be used. • **Daily requirements:** Food should be placed in an open flat bowl. Feeding should occur 3 times a week. • **Supplementary feeding**: N/A • **Equipment:** Uneaten food should be removed. Water should be topped up daily.
Breeding:	• **Mating:** The male deposits sperm into the female's gonopores on the first segment of the females back pair of walking legs. • **Pregnancy:** Land Hermit Crabs cannot breed in captivity, as eggs need to hatch in the sea. • **Fate planning:** As an introduced species to SA they must NEVER be released into the environment or waterways.

Handling:	• **Human:** Hermit crabs should be handled minimally. Wash hands (no soap) thoroughly before handling the crab. Pick them up by the back of the shell and place them on an open flat palm. NEVER try to remove a crab from its shell home. • **Equipment:** Where crab movement is being observed by children out of the tank they must be placed on clean tray or plastic sheet not on the floor or carpet. • **Transporting:** Hermit crabs should be transported in their tank or a container that has been lightly sprayed with water to maintain humidity. Transport quickly and do not leave unattended or allow the hermit crab to heat. • **Children:** Should not handle hermit crabs. Observation only. Children should not knock on the tanks.
Hygiene:	Thoroughly wash hands with soap and running water for at least 10-15 seconds after working or handling any animals. Dry hands with clean paper, cloth towel or air dryer. Turn off the tap with the paper towel if possible.
Signs of illness:	• **Indicators:** loss of appetite, failure to thrive.
Treatments:	Assistance from a veterinarian should be sought for confirmation of conditions and
	treatment options. Many aquarium treatments are not suitable for hermit crabs and may cause further distress or death.
Euthanasia:	When an illness or injury is such that recovery is unlikely then the animal must be euthanased by a veterinarian. Any death must be reported to the Animal Ethics Committee using the appropriate form (see section relating to ADVERSE EVENTS). Forms are available on the relevant websites – see contact details below.
Disposal/fate planning:	When no longer required hermit crabs must be re homed. They must NEVER be released into the environment or waterways. Bodies must be disposed of correctly in accordance with local council regulations.
Holiday and weekend care:	As they require specific conditions they would not cope well with being rostered to family carers. They need to be checked and fed regularly over weekends and holiday periods or taken home by staff. Records must be kept of 'off site' care. Feeding equipment and supplies must be provided to carers, with contact details for emergencies.
Approved activities:	Observation
Resources:	
Websites:	www.hermit-crabs.com
Texts:	Jones, D and Morgan, G (1994) *A field guide to crustaceans of Australian waters*. Western Australia Museum. Johnson, S (1989) *Hermit Crabs.* Lerner Publications Co. Poore, G. (2007) *Crabs, Hermit Crabs and Allies*. Museum Victoria.
Contact:	**Department for Education Animal Ethics Committee** https://edi.sa.edu.au/educating/programs-initiatives/animal-ethics Phone: 8463 5986 Email: education.animalethics@sa.gov.au

AEC STANDARD OPERATING PROCEDURES

SOP No:	**14**
SOP	**Horses**
Scientific Name:	***Equus caballus***
Category:	**2, 3, 4, 5**
Approval Level:	**Category 2: School Principal may delegate** Activities requiring Category 2 approval - Mustering, drafting (in crush or bailhead), capture, restraint and handling of non-free-living domesticated animals (grooming or holding an animal, collecting a milk sample, non-invasive measurements, leading or riding an appropriately trained animal). - Observation of particular animal behaviours, e.g. oestrus, parturition - School performance by outside agencies that have animals as part of their exhibits - Non-invasive measurement of body weight, body condition by visual assessment or condition scoring, growth, body proportions, pulse or blood flow, respiration, skin temperature (non-invasive), age by dentition, scrotum and testicles (palpation). - Familiarisation activities. - Administering water as a treatment. - Collection of wool, milk, faeces or urine samples (non-invasive). - Administering a topical treatment to the udder. - Coat care and grooming. **Category 3: School Principal may <u>NOT</u> delegate** Activities requiring Category 3 approval - Category 3 comprises many routine techniques but none which requires the breaking of skin or any blood loss (e.g. blood samples, ear tagging etc). - Non-invasive measurement of body condition by ultrasound Measurement of mild dietary effects (provided the normal nutritional needs for the life stage of the animals are met), high/normal protein, high/normal energy, high/normal fat, palatability - Taming/gentling. - Training for competition or showing. - Tethering animals. - Collection of saliva. - Measurement of body temperature (invasive). - Administering drench or capsules orally. - Coat clipping. - Loading and unloading animals onto transporters. - Showing animals at school and away. - Flystrike treatment. - Jetting animals. - Using sire harnesses. - Restraining with ropes. - Pregnancy detection by external ultrasound. **Category 4: Animal Ethics Committee approval is required** Activities requiring Category 4 approval - Category 4 comprises many routine husbandry techniques which have the potential to be painful or distressing to the animal. - Breaking-in cattle or horses. - Administering intraruminal, subcutaneous or intramuscularinjections. - Administering winged capsules orally. - Administering intravenous injections or intrauterine pessaries. - Tattoo application. - Oestrus synchronisation. **Category 5: Animal Ethics Committee approval is required** Activities requiring Category 5 approval - Category 5 comprises many husbandry techniques which have the potential to be painful or distressing to the animal and require a level of expertise or supervision to ensure that adverse events do not occur. - Collection of faeces, ruminal fluid or blood (invasive). - Freeze branding of cattle and horses. - Artificial insemination.

	Semen collection.
Authority:	**Government Schools** – Department for Education Animal
	Ethics Committee **Independent and Catholic Schools** - Non Government Schools Animal Ethics Committee
Authority Approval Date:	1 August 2010

Disclaimer:	*This document may be updated at any time. You should check the web site regularly to ensure that you are meeting the most recent recommendations. If you note any concerns with the information provided (inadequate, incorrect) please contact the relevant AEC (Refer to bottom of Standard Operating Procedure).*
Licensing Requirement:	Not applicable
Compliance Requirement:	The keeping of this species requires approval from the School Principal or the AEC. It is recommended that this Standard Operating Procedure be followed as a minimum in the provision of appropriate care and housing for this species.

General Information:	There is a range of breeds in use in Australia. These can be classified according to activity: • Olympic disciplines – eg: Thoroughbred/Warmblood • Hacking/show ring-eg: Thoroughbred/Pony/Arab; • Racing- eg:, Thoroughbred and Standardbred; • Farm work- for example, Stockhorse; and • Endurance riding - for example, Arab.
Physical Attributes:	• **Size:** at the withers varies between breeds. Measured in hands (1 hand = 100 mm). Shetland, about 8 hands, draught breed, 18-20 hands) • **Weight:** varies with breed – for example, 130 kg (miniature horse) – 900 kg (Percheron) • **Age at adult size:** 4 years, but variations between breeds • **Average life span:** 25-35 years • **Weight at birth:** Shetland 30 kg, draught 100 kg • **Gestation period:** 320-345 days (average 335) • **Number of offspring:** Normally one. Twins are rare and associated with low survival rates. • **Range of breeding ages:** mares 3-15 years • **Weaning age:** 6-9 months • **Body temperature:** 38^{o}C • **Heart rate:** 30-40 beats/minute • **Respiration rate:** 12 breaths/minute. Variations between individuals

Behaviour:	These points should always be noted when considering the behaviour of horses: • Horses are naturally gregarious and, as such, possess a strong herd instinct. • Horses may develop abnormal behaviours, such as weaving or wind-sucking, when kept under unnatural conditions that involve social isolation or low-roughage diets. Weaving is lateral swaying of the head over the stable door or some other barrier. Wind-sucking and crib-biting may be performed while grasping a surface and involve contraction of the horses' neck muscles and audible grunting These behaviours tend to persist even when the affected animals are managed more naturally. • Horses in the domestic state tend to find security in familiar surroundings. This can be likened to the security that they would derive from being members of the herd in the wild. • Horses are essentially nervous and excitable, so there is a strong instinctive flight response. • Horses have individual temperaments and this should be considered when assessing behaviour. • Horses are naturally nervous and suspicious of anything new or strange, sudden movements and loud noises. • Horses kept in confined areas, such as stables and small yards, often develop behavioural problems because of frustration and lack of stimulation. • In the wild, horses move to keep in touch with one another. When they are not free to do this, they tend to develop abnormal behaviour, such as weaving. • Horses have a small stomach and need to eat little and often. • Horses that are being fed cereals should be fed small amounts at a time and be offered high-fibre forages or they will tend to develop abnormal behaviours such as crib-biting and wind-sucking. **Selection of horses:** Horses chosen for use in schools and colleges should have calm temperaments and be easy to handle. Horses are very much individuals and the restraint used to handle one horse may not be suitable for another. All horses used in schools and colleges should be capable of being restrained adequately with a heads
	tall and lead rope.
Environment:	A horse kept at pasture will require at least one hectare to provide adequate feed. (This will be highly variable, depending upon pasture quality). Supplementation may be required, particularly in summer and winter. Pastured horses keep themselves exercised, but horses that are stabled or kept in restrictive yards for long periods require regular daily exercise. The recommended minimum size for a stable is 3.5 m x 3.5 m (3 m x 3 m for ponies), with a height of at least 2 500 mm, and for a yard, 5 m x 5 m, with some form of shelter. Small yards should have post-and-rail fencing using timber, steel pipes or steel posts. Barbed wire, prefabricated fencing and high-tensile fencing can cause severe injury to horses and should not be used. Horses should be able to see fencing material easily. Horses can cope with most temperature extremes experienced in Western Australia if they have adequate water and some form of shelter. Older horses or those stabled and recently turned out to pasture may require rugging with lined waterproof rugs in cold weather. Natural light is adequate for horses. Experienced stock people using horses for show purposes or to influence oestrus in breeding mares sometimes employ artificial light. It is unlikely that this need would arise in schools or college situations. Shelter from heat, wind and rain, provided by belts of trees or stables, is required. Stables should be well ventilated and free from draughts, and in paddocks, horses need an area protected from the wind. Bedding is only needed in a stable and should be deep enough to prevent leg injuries. Straw, wood shavings or any absorbent material is suitable, provided that the horse does not eat it. Remove dirty bedding from stables at least once a day. To help control worms, manure should be removed from paddocks.

Feeding:	As horses are unable to digest low-quality feeds efficiently, they should be provided with good-quality feeds at all times. Factors such as individual tastes, age, size and the amount of work done by horses will influence their feed requirements. Mature horses not in work can be maintained on pasture if it is of high quality throughout the year. Supplementary feed for horses usually consists of roughages such as legumes, cereal chaffs and hay and concentrates in the form of grains such as oats, barley and corn, pellets and protein meals. Horses will generally eat dry matter equivalent to about 1.5 to 2.5 per cent of their body weight per day. If the quantity or quality of pasture is inadequate, supplementary feeding will be necessary. Unlimited access to feed is allowed only when horses are at pasture. If supplementary feed is supplied, they should be fed at least twice a day. Horses have small stomachs, so small amounts, fed more often, are preferable to large amounts given less frequently. High-fibre feed should always be available. Lucerne hay is a useful roughage for horses, supplying all the nutritional requirements for a horse not in work. Horses are far more sensitive to their feed than ruminant animals. Any changes in diet should be made gradually, over eight to ten days. This minimises the risk of colic, especially if introducing grain or changing grain types or quantities. Do not feed mouldy feed. Beware of poisonous plants, in particular those that are palatable to horses. Low-fibre grains should be avoided unless treated: for example, barley should be boiled or steam rolled. A horse may drink 25 L - 45 L of water per day. Water and troughs should be clean and free from contamination. Supply water on demand, except after strenuous exercise, when the water should have the chill taken off it and be given in limited quantities until the horse has cooled off. Horses that are limited in their access to water tend to gorge themselves, possibly resulting in colic.
Disease prevention:	Disease control methods and internal and external parasite control programs should be developed in consultation with veterinarians or the department of Agriculture. All activities must be documented in the appropriate records.
Breeding:	
Handling:	Horses should be approached in quiet, kind way and handled in a firm, non-hesitant
	manner. Schools and colleges should choose horses with calm temperaments that require minimal restraint to perform activities. Many require only a headstall and lead rope to carry out all activities performed in schools.
Hygiene:	
Signs of illness:	Stock health should be monitored daily, or preferably more often. The first sign noticed is often a change in the horses' natural demeanour. They be listless or lethargic. Closer examinations may show variations in: • body temperature; • gastrointestinal functions, such as diarrhoea, weight loss or loss of appetite; • urogenital functions, e.g. abortion, infertility or abnormal discharges; or • respiratory functions, such as persistent coughing, gasping orpanting. There may be evidence of: • skin conditions, such as lesions or abnormal growths; • a tucked-up appearance, stiff gait, abnormal posture, patchy coat or loss of hair; • excessive scratching or rubbing; or • swollen joints or lameness A failure to thrive or grow is another sign of illness. Common ailments include colic or internal parasites.
Treatments:	If the cause of ill-health cannot be identified and corrected, assistance should be sought from veterinarians who are familiar with horses. Treatments must be documented in the appropriate records
Euthanasia:	When an illness or injury is such that recovery is unlikely then the animal must be euthanased by a veterinarian. Any death must be reported to the Animal Ethics Committee using the appropriate form (see section relating to ADVERSE EVENTS). Forms are available on the relevant websites – see contact details below.

Disposal/fate planning:	Horses can be sold privately, at auction or consigned to abattoirs. Carcasses must be disposed of in accordance with local council regulations.
Holiday and weekend care:	Horses need to be monitored, checked and fed regularly over weekends and holiday periods.
Approved activities:	Observation, breeding, farming
Resources:	
Websites:	www.pir.sa.gov.au www.sardi.sa.gov.au www.ansi.okstate.edu/LIBRARY/index2.html www.rspcawa.asn.au https://www.library.sydney.edu.au/
Texts:	Edwards, Elwyn Hartley (ed.)(2001). New Encyclopaedia of the Horse. Ringwood, Vic.: Darling Kindersley Australasia.
Contact:	**Department for Education Animal Ethics Committee** https://edi.sa.edu.au/educating/programs-initiatives/animal-ethics Phone: 8463 5986 Email: education.animalethics@sa.gov.au

AEC STANDARD OPERATING PROCEDURES

SOP No:	**15**
SOP	**Invertebrates**
Scientific Name:	***Varies***
Category:	**2 or 3**
Approval Level:	**Category 2: School Principal may delegate** Activities requiring Category 2 approval - Observation of particular animal behaviours, e.g. oestrus, parturition - School performance by outside agencies that have animals as part of their exhibits - Organisations bringing animals to school (such as Delta Society programs, RSPCA or PetPep). - Breeding of mice or other appropriate animal in the classroom. - The appropriate care of classroom pets. - Non-invasive measurement of body weight, body condition by visual assessment or condition scoring, growth, body proportions, pulse or blood flow, respiration, skin temperature (non-invasive), age by dentition, scrotum and testicles (palpation). - Familiarisation activities. - Administering water as a treatment. - Collection of wool, milk, faeces or urine samples (non-invasive). - Animals on loan from the Nature Education Centre. (Note : the NEC will report directly to the Animal Ethics Committee on the number of animals loaned so schools should not include them in their returns) **Category 3: School Principal may <u>NOT</u> delegate** Activities requiring Category 3 approval - Category 3 comprises many routine techniques but none which requires the breaking of skin or any blood loss (e.g. blood samples, ear tagging etc). - Measurement of mild dietary effects (provided the normal nutritional needs for the life stage of the animals are met), high/normal protein, high/normal energy, high/normal fat, palatability - Showing animals at school and away.
Authority:	**Government Schools** – Department for Education Animal Ethics Committee **Independent and Catholic Schools** - Non Government Schools Animal Ethics Committee (NGSAEC)
Authority Approval Date:	1 August 2010

Disclaimer:	*This document may be updated at any time. You should check the web site regularly to ensure that you are meeting the most recent recommendations. If you note any concerns with the information provided (inadequate, incorrect) please contact the relevant AEC (Refer to bottom of Standard Operating Procedure).*
Licensing Requirement:	Not applicable
Compliance Requirement:	The keeping of this species requires approval from the School Principal. It is recommended that this Standard Operating Procedure be followed as a minimum in the provision of appropriate care and housing for this species.

General Information:	There are many species on invertebrates that may be kept on sites for observation and life cycle studies. Invertebrates are animals without backbones and may include insects, spiders, crustaceans, worms or annelids and molluscs. Commonly sites keep yabbies, hermit crabs (see Species Fact Sheet), earthworms, snails, slugs, ants, cockroaches, silkworms, crickets, mealworms, stick insects, butterflies, moths, spiders, scorpions and single celled animals such as euglens. Invertebrates are very diverse in their body shapes, sizes, lifecycles, behaviours and needs. They are found across a diverse range of habitats. Children will be most familiar with those within their home or local environments. Sites can undertake observations of invertebrates in their natural environment within the school and local community (parks, gardens) or they can be housed in classrooms temporarily for closer observation and study. Such study should only be for the purposes of observing their behaviour, growth and

	reproduction. They should not be taken from the wild and kept as long-term pets. Invertebrates should be kept for short periods and returned to their exact environment habitat from where they were collected. Specific information should be obtained before keeping any species and this fact sheet only highlights some generic information. Such information used must be clear on the housing, feeding and care requirements each species requires. Australia alone has over 220,000 species of invertebrates. Of these 86,000 have been identified in 661 families. There are over 300 million species in the world making up 90% of all living things on the planet. www.australian-insects.com **All invertebrates must be protected from exposure to fly sprays, air fresheners etc or they will die. Cover the cage if spraying is required and ensure the fumes and spray has settled before uncovering.** **Did you know? Australia has more than:** 50 species of stick and leaf insects 162 species of mantis 250 species of cicadas 348 species of termites 428 species of cockroaches 550 species of shield bugs 2,827 species of crickets and grasshoppers 4,000 species of ants 7,786 species of flies 20,816 species of butterflies and moths and 28,200 species of beetles! Source: Wet Tropics Management Authority. www.australian-insects.com **Scorpions:** Scorpions are solitary animals. They belong to the Arachnida class. They have 8 legs and 2 front pincers. They are nocturnal and most live in the tropics. They live underground, under logs and rock or in holes in the sand. They can live 6-7 years in captivity. They eat mealworms, spiders, cockroaches, centipedes and grasshoppers. They use their tail with a stinger at the end to defend themselves against predators. They mate and give birth to live young that live on the mothers back for about 4 weeks. They give birth every 1-2 years. They moult as they grow. (Source: Nature Education Centre Fact Sheet) **Spiny Leaf Insects:** They look like leaves as part of their camouflaging. They appear awkward and slow. They are plant eaters. Feed on sprays of fresh gum leaves. (They are not the same as Mantids – Preying Mantis that eat other insects). The female is larger than the male and may spend much of her time hanging under the leaves and twigs. They can be handled safely but adults can fly. Females lay eggs and may lay them with or without a male. Paper or potting soil on the base, temp of 25°, wet sponge in a bowl, daily spraying of foliage for humidity, aquarium heater in a 2litre water bottle or a low wattage bulb with mesh cover provide a humid tropical environment. Raising young from eggs requires specific conditions. (Source: Nature Education Centre Fact Sheet) **Wanderer Butterfly:** Found on milkweed during October to May. They are not native to Australia. Caterpillars need a supply of moist leafy milkweed. Butterflies may be fed on Milkweed flowers or flowers and leaves dipped in sugar and water solution. They need some braches in the cage tucked away to attaché themselves when they make their pupa case. They need to be undisturbed until they emerge. Where they are kept in open containers caterpillars may wander off and butterfly pupas may be found attached to furniture or walls. (Source: Nature Education Centre Fact Sheet) **Silkworms:** They are caterpillars of the silk moth. They will not escape and can be kept in a shoebox or open container. Moths cannot fly. They need a fresh supply of mulberry or osage-orange. They need sticks, small boxes or egg cartons in which to spin their cocoons. Leaves should be changes daily and silkworms can be encouraged to move to the new leaf without being picked up. Unwinding the silk can occur before the moth hatches (gently shake the pupa and if it rattles its ready) by immersing the cocoon in warm water for a few minutes to loosen the gum. The thread can be unwound and the pupa immersed in a box of sawdust or cotton wool

	to hatch from. Moths emerge and mate for several hours after which 600 yellow eggs will be laid turning grey and remaining in the egg for about 9 months. If eggs are hatching before Mulberries leaf try lettuce or place eggs in fridge to slow them down. (Source: Nature Education Centre Fact Sheet) **Euglena:** Single celled, motile, flagellated, fresh water protozoa. Found in stagnant, nutrient rich shaded water. Have both plant and animal characteristics. To reproduce they split lengthways down the middle. New colonies must be bred by subculturing. (Source: Nature Education Centre Fact Sheet) **Snails:** Snails are molluscs that live in a shell (unlike slugs) to help protect it from predators. Many predators crush the shell and eat the snail (birds, lizards). They have a lubricating 'foot' that they slide along on. They have two eyestalks but poor sight and two feelers for searching out their environment. They rub their tongue along leaves like a grater. They need to be kept in an enclosed cage or they will wander off. They breathe through a hole under the shell. After mating snails lay eggs in the earth. In about 4 weeks the young snails will hatch. They can be fed leaves from the garden, lettuce, carrot tops etc. **Yabbies:** Semi aquatic found in rivers, lakes and dams. They make tunnels in the mud. They can be kept in aquariums or paddling pools with a layer of sand on the bottom. They need aeration pumps. They need a cool place out of the sun. Provide rocks and cave like containers. They are omnivores and need a variety of meat and plant food. Live earthworms, small pieces of meat, mealworms, dried fish, lucerne pellets, vegetable matter. Equivalent of 1 earthworm 2-3 times a week is sufficient. They can be out of the water for 10 minutes. Water should not get too hot, dirty or lacks air. They moult. Females carry eggs and babies under their tail. Too many yabbies may lead to fights and injuries. Babies should be removed or they may be eaten. (Source: Nature Education Centre Fact Sheet)
Physical Attributes:	• Size (adult): **Varies according to the species.** • Weight (adult): **Varies according to the species.** • Life span: **Varies according to the species.** • Sexual maturity: **Varies according to the species.** • Gestation period: **Most invertebrates lay eggs or birth live young.** • Number of offspring: **Varies with species.**
Behaviour:	• Normal: **This will vary with species. Some will be active during the day, others at night. Observation of the invertebrates in their natural environment will show how they should be behaving in captivity if they are healthy and well cared for.** • Socialisation: **Some will be very solitary (eg scorpion) and others will be used to living in colonies – sometimes with thousands of others (eg ants).** • Activity levels (hibernation etc): **They will be active at different times of the day and in different seasons. Some will only be evident after rains or when food sources are available.** •

Environment:	• Space: **You will need a cage or terrarium that best provides for the physical characteristics and behaviours of the species – in particular the likelihood that they will wander off!.**
	• Cages should have;
	  ○ **Secure mesh lids**
	  ○ **Provide for observation and hiding**
	  ○ **Be easily cleaned**
	  ○ **Be set up to reflect the natural environment**
	  ○ **Provide adequate ventilation**
	  ○ **Be able to be heated or cooled according to the species needs**
	• Movement: **Considerable variations between species. Caged invertebrates need to be able to move around freely – to stretch to their full height, to flutter, crawl, climb, spread their wings. Consider providing more than the minimum for their health and enjoyment.**
	• Water: **Clean water must be available at all times.**
	• Temperature: **Cages should not be left standing in direct sunlight or placed next to windows or glass doors. Ensure cages are not left in a draught or near heating and cooling systems.**
	• Lighting: **Normal indoor lighting is sufficient for some invertebrates others will need artificial lighting.**
	• Covering: **All cages and containers must be fully enclosed and able to be secured (locked).**

	• Shelter: **Will vary with species but try to replicate the habitat they come from with soils, plants, logs, rocks etc. Do not have them exposed to weather extremes.** • Cleaning: **Cages must be cleaned regularly. Clean out water and feed containers daily.**
Feeding:	• Diet: **Will vary with species. Make sure you are aware of the dietary requirements and have a supply available before you obtain or house an invertebrate.** • Daily requirements: **Will vary from species. Some need to be fed continuously other may be able to go days without food.** • Supplementary feeding: **Some species may need additional feeding to maintain their health and well-being (ie when breeding or new hatchlings).** • Equipment: **Water bottles, bowls, pots.**
Breeding:	• Mating: **will vary from species.** • Pregnancy: **They usually lay eggs or give birth to live young. Often very large numbers of young are produced eg 600 eggs.** • Fate planning: **Breeding stock must be re homed. If an introduced species to an area they must NEVER be released into the environment. Where they have been taken directly from a habitat they can be returned to this site.**
Handling:	• Human: **Invertebrates should be handled as little aspossible.** • Equipment: **Soft nets can be used to catchinvertebrates.** • Transporting: **Invertebrates can be transported in small boxes, jars etc with air holes or small covered cages. Transport quickly and do not leave for long periods in heat or cold conditions.** • Children: **Should not handle some invertebrates (eg scorpions). Children should only handle if able to ensure they do not drop, crush or injure the creatures. Observation only at all other times.**
Hygiene:	Thoroughly wash hands with soap and running water for at least 10-15 seconds after working or handling any animals. Dry hands with clean paper, cloth towel or air dryer. Turn off the tap with the paper towel if possible.
Signs of illness:	**Indicators:** changes in droppings, loss of appetite, changes in behaviour, body posture, unable to move, loss of body weight, growths, injuries, failure to thrive.
Treatments:	Assistance from a veterinarian should be sought for confirmation of conditions and treatment options.
Euthanasia:	When an illness or injury is such that recovery is unlikely then the animal must be euthanased by a veterinarian. Any death must be reported to the Animal Ethics Committee using the appropriate form (see section relating to ADVERSE EVENTS). Forms are available on the relevant websites – see contact details below.
Disposal/fate planning:	When no longer required invertebrates must be re homed or returned to the exact habitat they were taken from. Invertebrates from the Nature Education Centre must be returned to them. Bodies must be disposed of correctly in accordance with local council regulations.
Holiday and weekend care:	Invertebrates in cages generally cope with being rostered to responsible carers. They need to be checked and fed regularly over weekends and holiday periods if they remain on site. Records should be kept of 'off site' care. Cages and feeding equipment and supplies must be provided to carers, with contact details for emergencies.
Approved activities:	Observation
Resources:	
Websites:	www.insectfarm.com.au www.australian-insects.com www.amonline.net.au/factsheets
Texts:	Fenner, M. (1991) *Keeping Silkworms* Penguin Books Australia. Croser, J. (1990) *Keeping Silkworms* Era Publications Australia. Claybourne, A. (2004) *Ants and Termites* Franklin Watts Australia.

	Birch, R. (2000) *Ants up close* Raintree Publications Harcourt Education Ltd. Berman, R. (1996) *Ants* Lerner Publications Co. Eckart, E. (2005) *Monarch Butterfly* Scholastic Inc. Schaefer, L. (2003) *Earthworms* Raintree Publications Harcourt Education Ltd. Llewellyn, C. and Watts, B. (2000) *Earthworms* Franklin Watts Australia. Pascoe, E. (1997) *Earthworms* Blackbirch Press Inc. Schaefer, L. (2003) *Slugs* Raintree Publications Harcourt Education Ltd. Watts, B. (2002) *Snails* Franklin Watts Australia. Hartley, K. and Macro, C. (1998) *Snails* Reed Education and Professionals Publications Ltd.
Contact:	**Department for Education Animal Ethics Committee** https://edi.sa.edu.au/educating/programs-initiatives/animal-ethics Phone: 8463 5986 Email: education.animalethics@sa.gov.au

AEC STANDARD OPERATING PROCEDURES

SOP No:	**16**
SOP	**Lizards – Geckos and Skinks, Large and Small Dragons**
Scientific Name:	***Varies with species***
Category:	**2 or 3**
Approval Level:	**Category 2: School Principal may delegate** Activities requiring Category 2 approval - Observation of particular animal behaviours, e.g. oestrus, parturition - School performance by outside agencies that have animals as part of their exhibits - Organisations bringing animals to school (such as Delta Society programs, RSPCA or PetPep). - Breeding of mice or other appropriate animal in the classroom. - The appropriate care of classroom pets. - Non-invasive measurement of body weight, body condition by visual assessment or condition scoring, growth, body proportions, pulse or blood flow, respiration, skin temperature (non-invasive), age by dentition, scrotum and testicles (palpation). - Familiarisation activities. - Administering water as a treatment. - Collection of wool, milk, faeces or urine samples (non-invasive). - Animals on loan from the Nature Education Centre. (Note : the NEC will report directly to the Animal Ethics Committee on the number of animals loaned so schools should not include them in their returns) **Category 3: School Principal may <u>NOT</u> delegate** Activities requiring Category 3 approval - Category 3 comprises many routine techniques but none which requires the breaking of skin or any blood loss (e.g. blood samples, ear tagging etc). - Non-invasive measurement of body condition by ultrasound - Measurement of mild dietary effects (provided the normal nutritional needs for the life stage of the animals are met), high/normal protein, high/normal energy, high/normal fat, palatability - Taming/gentling. - Collection of saliva. - Measurement of body temperature (invasive). - Showing animals at school and away.
Authority:	**Government Schools** – Department for Education Animal Ethics Committee **Independent and Catholic Schools** - Non Government Schools Animal Ethics Committee (NGSAEC)
Authority Approval Date:	1 August 2010

Disclaimer:	*This document may be updated at any time. You should check the web site regularly to ensure that you are meeting the most recent recommendations. If you note any concerns with the information provided (inadequate, incorrect) please contact the relevant AEC (Refer to bottom of Standard Operating Procedure).*
Licensing Requirement:	May apply to some species. Reptiles require a licence - 'Keep and Sell' Permit, before keeping or breeding is permitted. Check the department of Environment and Heritage web site when considering a reptile. www.environment.sa.gov.au. Reptiles must be obtained from a licensed keepers breeding stock.
Compliance Requirement:	The keeping of this species requires approval from the School Principal. It is recommended that this Standard Operating Procedure be followed as a minimum in the provision of appropriate care and housing for this species.

General Information:	Lizards are reptiles and, unlike birds or mammals, are cold-blooded creatures whose body temperature changes as the air temperature changes. Most of the larger lizards tame relatively easily and respond well to handling. Other types require a dedicated keeper and specialised facilities and should not be attempted. Lizards are very diverse in size and form. They have scales and feed on a diet of live food. Many species are endangered and lizards must not be collected from the wild as it is illegal without a 'Take' or 'Rescue' Permit. They are tolerant of human handling but are not affectionate animals. They should not be carried around. They can be defensive and bite. They are very food orientated and may attempt to bite anything that moves – including fingers!
	Never spray chemicals or fumes near lizard enclosures. Reptiles need specialised care – caging and food. The site should consider its capacity to store frozen mice or rats on site safely and hygienically. Please be aware it is against the Animal Welfare Act to feed live mice or rats to reptiles. Check the species thoroughly that you are interested in keeping to ensure you can provide for its needs. Also note the length of the lifespan for reptiles is considerable and means the animal needs care for several decades. They are not a short-term option. The information in this fact sheet is generic. **Small Geckos:** Includes species such as Beaded, Bynoe's Prickly, Eastern Stone, Wood, Western Stone or Wheat-belt Geckos. They like to shelter under bark and leaf litter, under rocks and in small burrows. They eat crickets, grasshoppers, beetles, spiders, insects and other geckos, cockroaches, termites, ants, slaters, mealworms and larvae. They are very active at night. They lay 2 eggs per clutch. Geckos do not have moveable eyelids so they lick their eyes to clear them of dust. *(Source: Nature Education Centre Fact Sheet)* **Large Geckos:** Includes species such as Thick-tailed, Barking, Knob-tailed or Starred Knob-tailed Geckos. These species can be identified by the different tails they have, being wider, flatter and leaf shaped. They like to shelter under bark and leaf litter, under rocks and in small burrows. They eat crickets, grasshoppers, beetles, spiders, insects and other lizards, cockroaches, termites, ants, slaters, mealworms and larvae. They are very active at night. They lay 2 eggs per clutch. Geckos do not have moveable eyelids so they lick their eyes to clear them of dust. *(Source: Nature Education Centre Fact Sheet)* **Small dragons:** There are approx 22 species in 4 main groups – crevice (flattened bodies), sand, burrowing or ground and bicycle dragons. . Most are small and have long tails twice the length of their bodies. They are usually camouflaged to the colour of their environment. Dragons eat invertebrates such as ants, termites, centipedes, scorpions, snails, spiders, beetles, moths etc. as well as leaves, flowers, fruits and carrion. *(Source: Nature Education Centre Fact Sheet)* **Bearded dragons:** There are about 6 species of Bearded Dragons. In the wild they live in desert arid to semi arid regions. They have strong legs and sharp claws. They are omnivorous and eat a variety of foods – flowers, fruits, green shoots, insects, spiders, eggs, small lizards and small mammals. When alarmed they face the threat with their beard extended. Females lay 10-20 eggs in a burrow. *(Source: Nature Education Centre Fact Sheet)* **Skinks:** This is the largest family of lizards in Australia. They range from a few cms to 40 cms in length. They are mostly diurnal and posses shiny tight scales. They include Sleepy, Eastern Bluetongue, Conningham's, Gidgee, Broad-banded and Narrow-banded Skinks. They commonly produce live young from 1-25 depending on species which are self sufficient from birth. They hiss and mouth gape when startled. They are omnivorous and eat a variety of foods – flowers, fruits, berries, green shoots, insects, snails, spiders, eggs, small lizards and small mammals. *(Source: Nature Education Centre Fact Sheet)*

Physical Attributes:	• **Size (adult):** They can vary from a few cms to 50cms – nose to tail tip. • **Weight (adult):** Varies with species. • **Life span:** Varies with species. Bearded Dragons live for 10-15 years in captivity. • **Sexual maturity:** Varies with species. • **Gestation period:** Many reptiles lay eggs but some birth live young. • **Number of offspring:** Varies but 2-3 is common. Some species may lay up to 20 eggs or birth 25 live young. Size (adult): They can vary from a few cms to 50cms – nose to tail tip. • **Weight (adult):** Varies with species. • **Life span:** Varies with species. Bearded Dragons live for 10-15 years in captivity. • **Sexual maturity:** Varies with species. • **Gestation period:** Many reptiles lay eggs but some birth live young. • **Number of offspring:** Varies but 2-3 is common. Some species may lay up to 20 eggs or birth 25 live young.
Behaviour:	• **Normal:** Depending on the species there will be variations in the activity levels of reptiles. They should however appear alert, eat well and have good condition to their body and scales. They should shed their skins at regular intervals. • **Socialisation:** Many reptiles live solitary lives but some smaller species may live in colonies. Lizards should have been together from a young age and of the same sex to avoid breeding. Males together may fight. • **Activity levels (hibernation etc):** Many reptiles come out during the heat of the day to warm themselves. Others are nocturnal, such as Geckos. Many species hibernate during the cooler winter months. In spring they are particularly active as it is mating time.

Environment:	• **Space:** At a minimum the lizard should be able to comfortably move around the enclosure, climb and turn freely. The enclosure should be several times the lizards length and at least as wide as the lizards length.
	  ○ A glass or glass fronted timber tank.
	  ○ Ventilated top for tank.
	  ○ Light fitting and UV bulb (for heating and to simulate sunlight).
	  ○ Thermometer.
	  ○ Water and food dishes.
	  ○ Landscape materials, eg soil, branches, leaf litter and rocks.
	  ○ The size of the tank will determine the number and type of lizards kept.
	• **Movement:** Lizards have strong legs with toes and claws and a long tail. They can move and climb very rapidly. Most run and sprint across the ground. Many are good climbers. Geckos have sticky pads on their feet, which enables them to climb and adhere to most surfaces.
	• **Water:** Clean water must always be available. Although they can get moisture from their food never let the water pot dry out. Water dishes should be shallow containers like lids from glass jars, hence they can dry out quickly.
	• **Temperature:** Lizards like to soak up heat from their environment – and can often be found 'sunning' themselves. Once the tank has been landscaped, attach the lamp to the lid at one end of the tank, over the rocks or branches. This provides a 'hot spot" at one end and a cooler area at the other. The air temperature in the tank should be 24 - 27°C. Keep the tank away from direct sun, which will increase the temperature.
	• **Lighting:** A low wattage globe should be on at all times unless the weather is extremely hot. A UV light should be used if the reptiles do not have access to direct sunlight. This is important for calcium metabolism.
	• **Covering:** All enclosures must have a mesh covering.
	• **Shelter:** The enclosure should provide an area for refuge from lights, action and other lizards. This can be created with plants, logs and rocky overhangs.
	• **Cleaning:** Uneaten food should be removed the day after feeding. Water should be changed daily. Any faeces or soiled areas should be removed every few days. The whole enclosure should be cleaned once a term. Soils and items used in creating a natural environment should be cleaned and changed at this time.

Feeding:	• **Diet:** When keeping larger skinks, eg sleep lizards or blue-tongues, a mixture of chopped up fruits and vegetables, insects and small amounts of dog food (eg Pal) will be acceptable food. Larger dragons will also eat the above food but prefer more insects. Smaller dragons prefer all live food. Geckos also prefer live food. Jar lids can contain the live food in the enclosure. • **Daily requirements:** To maintain good healthy animals, feed them regularly during the warmer months but slow down in winter. Feed each lizard 2-3 times a week in summer and 1-2 times a week with smaller quantities in winter. Quantities for dragons and skinks would be 2 heaped teaspoons of finely chopped fruit/veg, 1 teaspoon chopped hard boiled egg or Pal dog food, 1 heaped teaspoon of insects eg mealworm. Quantities for Geckos would be 2-3 insects per meal. • **Supplementary feeding:** Should not be required if a varied diet as stated above is provided. • **Equipment:** Food and water bowls.
Breeding:	• **Mating:** Lizards will mate when both sexes are ready in spring with birth occurring in early summer. • **Pregnancy:** Eggs are laid or live young birthed approx 4-6 weeks after fertilisation. The temperature of the incubation of the eggs determines the gender of the young. • **Fate planning:** Breeding stock must be re homed. They must NEVER be released into the environment, as this may not be their suitable habitat.
Handling:	• **Human:** Grip the lizard firmly around the body, using fingers to trap two legs if possible. The thumb and forefinger can be used to hold the head still if the creature attempts to bite. Do not grasp the lizard's tail as it may come off! Small geckos are very fragile and should not be handled. Ensure they are handled in an enclosed area to avoid them escaping. • **Equipment:** A large soft net should be used for capture or moving lizards. A towel can be used to cover larger lizards. • **Transporting:** Lizards should be moved in ventilated carry cages. Transport quickly and do not leave unattended or allow the lizard to over heat. Do not transport on days that are over 32 degrees. • **Children:** Should not handle lizards however they can touch them gently avoiding the head area. Observation only, particularly for fragile species. Children should not tap on glass.
Hygiene:	Thoroughly wash hands with soap and running water for at least 10-15 seconds after working or handling any animals. Dry hands with clean paper, cloth towel or air dryer. Turn off the tap with the paper towel if possible. All reptiles have the potential to transmit diseases. Keeping their enclosures clean and using good hygiene should assist with this. A range of protozoa and bacterial infections such as Salmonella sp can occur. Follow first aid procedures should a bite occur.
Signs of illness:	**Indicators:** Lizards of about the same size should be kept together because larger lizards may eat the smaller ones. The following list of diseases, pests and some cures may assist: • Rickets – needs sunlight and multivitamins. • Ticks – remove from body. • Snout abrasions. • Mite infestation – place a pest strip in the cage but out of the lizard's reach. • Appears lethargic, weight loss, lumps or swellings, difficulty walking, skin changes, infections, wounds. • Not drinking or eating. • Vomiting. • Shedding problems.
Treatments:	Assistance from a veterinarian should be sought for confirmation of conditions and treatment options. Treatments must be documented in the appropriate records.
Euthanasia:	When an illness or injury is such that recovery is unlikely then the animal must be euthanased by a veterinarian. Any death must be reported to the Animal Ethics Committee using the appropriate form (see section relating to ADVERSE EVENTS). Forms are available on the relevant websites – see contact details below.

Disposal/fate planning:	When no longer required lizards must be re homed. They must NEVER be released into the environment. Bodies must be disposed of correctly in accordance with local council regulations.
Holiday and weekend care:	Lizards in cages generally cope with being rostered to responsible carers. They need to be checked and fed regularly over weekends and holiday periods if they remain on site. Records must be kept of 'off site' care. Cages and feeding equipment and supplies must be provided to carers, with contact details for emergencies.
Approved activities:	Observation
Resources:	
Websites:	www.abc.net.au www.australiazoo.com.au www.teachers.ash.org.au
Texts:	Hernandez-Divers, S. (2003) *Keeping Unusual Pets – Geckos* Reed Educational and Professional Publishing Ltd. Cogger, H. (1992) *Reptiles and Amphibians* of Australia Reed Books. Wilson and Swan. (2003) *A Complete Guide to Reptiles of Australia* Reed New Holland Australia Pty Ltd.
	Readers Digest (2005) *Encyclopedia of Australian Wildlife* Readers Digest Australia Pty Ltd. Ehmann, H. (1992) *Encyclopedia of Australian Animals – Reptiles* Collins Angus and Robertson Pty Ltd.
Contact:	**Department for Education Animal Ethics Committee** https://edi.sa.edu.au/educating/programs-initiatives/animal-ethics Phone: 8463 5986 Email: education.animalethics@sa.gov.au

AEC STANDARD OPERATING PROCEDURES

SOP No:	**17**
SOP	**Mice**
Scientific Name:	***Mus musculus***
Category:	**2 or 3**
Approval Level:	**Category 2: School Principal may delegate** Activities requiring Category 2 approval - Observation of particular animal behaviours, e.g. oestrus, parturition - School performance by outside agencies that have animals as part of their exhibits - Organisations bringing animals to school (such as Delta Society programs, RSPCA or PetPep). - Breeding of mice or other appropriate animal in the classroom. - The appropriate care of classroom pets. - Non-invasive measurement of body weight, body condition by visual assessment or condition scoring, growth, body proportions, pulse or blood flow, respiration, skin temperature (non-invasive), age by dentition, scrotum and testicles (palpation). - Familiarisation activities. - Administering water as a treatment. - Collection of wool, milk, faeces or urine samples (non-invasive). - Animals on loan from the Nature Education Centre. (Note : the NEC will report directly to the Animal Ethics Committee on the number of animals loaned so schools should not include them in their returns) **Category 3: School Principal may <u>NOT</u> delegate** Activities requiring Category 3 approval - Category 3 comprises many routine techniques but none which requires the breaking of skin or any blood loss (e.g. blood samples, ear tagging etc). - Non-invasive measurement of body condition by ultrasound - Measurement of mild dietary effects (provided the normal nutritional needs for the life stage of the animals are met), high/normal protein, high/normal energy, high/normal fat, palatability - Taming/gentling. - Collection of saliva. - Measurement of body temperature (invasive). - Showing animals at school and away.
Authority:	**Government Schools** – Department for Education Animal Ethics Committee **Independent and Catholic Schools** - Non Government Schools Animal Ethics Committee (NGSAEC)
Authority Approval Date:	1 August 2010

Disclaimer:	*This document may be updated at any time. You should check the web site regularly to ensure that you are meeting the most recent recommendations. If you note any concerns with the information provided (inadequate, incorrect) please contact the relevant AEC (Refer to bottom of Standard Operating Procedure).*
Licensing Requirement:	Not applicable
Compliance Requirement:	The keeping of this species requires approval from the School Principal. It is recommended that this Standard Operating Procedure be followed as a minimum in the provision of appropriate care and housing for this species.

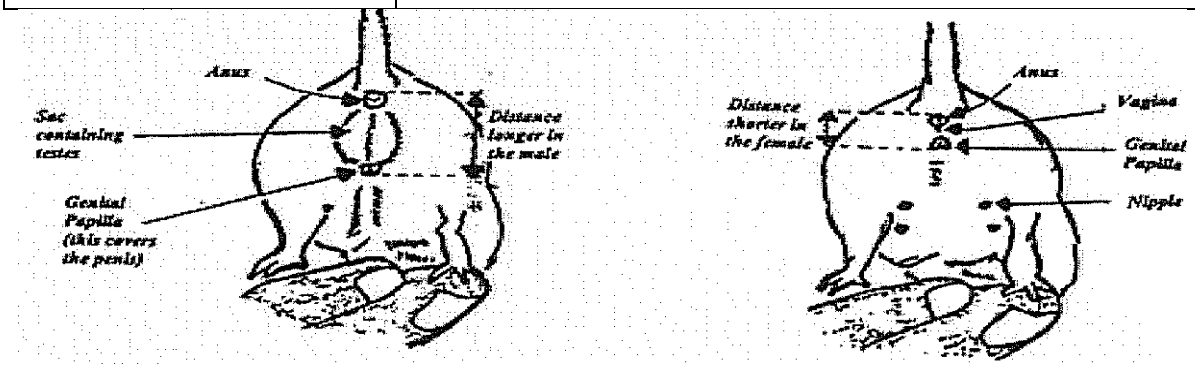
General Information:	The house mouse is of European origin and is the only mouse that should be kept as a pet. There are over 300 species of mice in the world with over 40 types of domestic mice. Many of the colours are the result of breeding and also as the result of many years of in-breeding. The numerous colours are a product of pigmentation and captive breeding. The common colouring (grey) is grey hair with a yellow tip, called agouti. There are pure black, brown, white (albino) and mice with white belly and a coloured upper body. Also, there are pied colours, black and white, brown and white and some mice with some skeletal differences, eg, short ears or tails. There are also variations in hair type - short straight, longhaired or curly haired. Mice are easy to keep, and the smell associated with mice should not be a deterrent as they are quite clean animals.

Physical Attributes:	• **Size (adult):** At 12 weeks, nose to tail approx 14cm • **Weight (adult):** Males 20-40g, females 18-35g • **Life span:** Average 2 years • **Sexual maturity:** Mice can breed from approx 5 weeks but it is recommended to wait until about 12 weeks. • **Gestation period:** 21 days
	• **Number of offspring:** 4-12, up to 6-8 broods per year. • **Weaning age:** 21 days
Behaviour:	• **Normal:** As social animals, mice prefer to live in a group of 2 or more. If not being used for breeding (which will happen continuously and often!) single sexes should be kept together. Females are fine to put together but all males together will need to have been together from weaning and have plenty of room or they will become aggressive. They normally present with shiny coats, bright eyes and alert ears. Mice are alert, active and inquisitive. They are agile and acrobatic – running, jumping, climbing, leaping. • **Socialisation:** If only one mouse is kept it will need lots of attention. They cannot be housed with other species. It is best to have 2 or more together. New mice from an outside source should not be added to an established cage, as these will be attacked. If it is necessary to add mice, thoroughly clean everything and add fresh clean wood shavings etc. and sprinkle mice with flea powder. This will remove the group smell and allow new animals an opportunity to enter the group. • **Activity levels (hibernation etc):** As they are nocturnal they will be most active at night, in the early morning and late afternoon resting during the day.

Environment:	• **Space:** The following cage aspects are required to provide basic housing for one or two mice.
	  ○ An area of 500sq cms per pair.
	  ○ Length 600mm, depth 300mm and height 250mm
	  ○ Part solid and part wire lid for security and ventilation.
	  ○ Wire mesh should be woven or flat mesh with very small squares
	  ○ Glass or a material not easily chewed – they will chew through exposed areas of wood or plastic.
	  ○ Water sipper with metal tubing.
	  ○ Sawdust/wood shavings for base. Absorbent and free from dust and splinters, non-toxic, non-edible.
	  ○ A basket made from approximately 10mm wire suspended from the side of the cage is suitable for pellets.
	  ○ Shredded paper, paper towel, small cardboard boxes and tissues for sleeping areas, nesting and to play in.
	  ○ Remember over-crowded cages place undue stress on the mice and may lead to fighting and injury.
	• **Movement:** Mice like to be very active. They enjoy exercise and like exercise wheels. Boxes, ladders, ropes, hollow logs, tubes and ramps assist with movement. As mice like to run along solid surfaces rather than open spaces it is important to ensure that there are items and dividers they can run along and through.
	• **Water:** Fresh water must be provided daily through sipper bottles or water bowls.
	• **Temperature:** Optimum temperatures are between 18-25°. They should have good bedding and shelter to protect them from weather extremes.
	• **Ventilation:** Adequate ventilation is important to maintain healthy mice and to reduce odours. They should be protected from draughts, fumes and direct sunlight. If indoors they should be kept away from direct cooling and heating appliances.
	• **Lighting:** A natural source of light is essential but they should not be placed in direct hot sun or near windows and glass doors. An artificial light can be used but they must be on for no more than 12 hours during the day.
	• **Covering:** There must be a cover over the cage to protect mice from external harms and to prevent them from escaping. Mesh top or part solid/ part mesh are good and help with ventilation.
	• **Shelter:** The cage must provide areas to shelter from the weather, retreats and hiding places. Cardboard boxes, wooden boxes, large pipes are items that can be used. They need creative items to stimulate them – roots and twigs for gnawing, toys, straw, newspaper or peat moss for bedding and chewing. Depending on the size of the cage landscape and play materials such as hollow logs, cardboard tubes, large rocks, banksias or pine cones, mallee roots, pieces of native cherry can be provided. Mice are sensitive to loud noise and should be placed in a quiet area. Children should not bang on the cage.
	• **Cleaning:** As the output of urine and faeces is high cages must be cleaned regularly. The cage floor must be covered with absorbent material. This should be cleaned at intervals of approximately one week in order to keep the 'mouse smell' down to a minimum. This smell is caused because the males are territorial and 'mark' their territories. For this reason, in small cages only one male should be kept. If more males are to be kept, then a larger cage must be supplied. As mice are dependent on smell they are also sensitive to smell so avoid exposure

	to chemicals, perfumes, deodorisers. They can also smell other predators such as rats and should not be co located, as they will become very stressed.
Feeding:	• **Diet:** Standard mouse cubes, seed and fresh vegetables will provide a good diet. As mice foul their food, long life pellets etc. should be kept off the floor, and only enough seed etc for one day should be provided. Mice drink a lot of water and this should be available at all times. • **Daily requirements:** A small handful of fresh pellets each day (don't keep pellets for more than 60 days) and a handful selection of green feed – carrot, apple or celery cubed. Lactating females need four times the amount of food and water they normally consume. • **Supplementary feeding:** Not necessary if a balanced diet is provided. DO NOT feed mice cheese. • **Equipment:** Sipper bottles and feeding bowls.

Breeding:	• **Mating:** If not wanting to breed keep females together or males together. • **Pregnancy:** Mice are able to breed from 6 weeks of age with a gestation period of 3 weeks. Their colour is visible at approximately three days; their eyes open at approximately 10 days and their ears enlarge at approximately 18days. • **Fate planning:** Breeding stock must be re homed. They must NEVER be released into the environment. • **Sexing the Mice:** The easiest way to find out the sex of the mice is to look at the position of the genital organs. The distance between and anus and genital papilla is always shorter in thefemale.



Handling:	• **Human:** Mice are usually easy to handle when this has been done from a very young age and regularly. They are easy to pick up by the base of their tail or the scruff of their neck. Even very young mice can be moved for cage cleaning, as long as they are replaced as soon as possible and the parents are tame. Once the rear legs lift of the ground the other hand can be placed under the mouses body for support. Well handled mice can be lifted directly by scooping. Mice do bite so care must be taken not to annoy them. • **Equipment:** Make sure they are handled in an enclosed area to avoid losing the mice. • **Transporting:** Use the cage or small-ventilated carry cages. Remember they can eat their way out of cardboard boxes etc very quickly. Do not leave for long periods in heat or cold conditions. Do not transport on days that are over 32 degrees. • **Children:** Should handle mice under staff supervision and petting is preferable to holding. Be aware of biting risks.
Hygiene:	Thoroughly wash hands with soap and running water for at least 10-15 seconds after working with or handling any animals. Dry hands with clean paper, cloth towel or air dryer. Turn off the tap with the paper towel if possible. Follow first aid procedures should a bite occur.
Signs of illness:	**Indicators:** • Stretched out rather than foetal curling to rest. • Problems with or little movement. • Discharges. • Coughing or sneezing. • Excessive scratching. • Lack of balance. • Weight loss, raised fur, lumps, swellings, and infections. Sick mice should be segregated from the others and all cages cleaned thoroughly.
Treatments:	Assistance from a veterinarian should be sought for confirmation of conditions and treatment options. Treatments must be documented in the appropriate records.
Euthanasia:	When an illness or injury is such that recovery is unlikely then the animal must be euthanased by a veterinarian. Any death must be reported to the Animal Ethics Committee using the appropriate form (see section relating to ADVERSE EVENTS). Forms are available on the relevant websites – see contact details below.
Disposal/fate planning:	When no longer required mice must be re homed. They must NEVER be released into the environment. Bodies must be disposed of correctly in accordance with local council regulations.

Holiday and weekend care:	Mice generally cope with being rostered to responsible carers. They need to be checked and fed regularly over weekends and holiday periods if they remain on site. Records must be kept of 'off site' care. Cages and feeding equipment and supplies must be provided to carers, with contact details for emergencies.
Approved activities:	Observation
Resources:	
Websites:	www.rspca.org.au
Texts:	Corrie, B. (1973) *Mice and Men* Australian Science Education Project. Warren, G. *Rabbits, Guinea Pigs and Mice* Burwood State College. RSPCA (SA) Inc *Care of Mice.* Head, H. (2000) *My Pet Rats and Mice* Belithia Press Ltd. Thomas, R. and Stutchbury, J. (1993) *Mice* Macmillan Education Australia. Coppendale, J. (2004) *You and your Pet Mice* QED Publishing.
Contact:	**Department for Education Animal Ethics Committee** https://edi.sa.edu.au/educating/programs-initiatives/animal-ethics Phone: 8463 5986 Email: education.animalethics@sa.gov.au

AEC STANDARD OPERATING PROCEDURES

SOP No:	**18**
SOP	**Pigs**
Scientific Name:	***Sus scrota domestica***
Category:	**2, 3, 4, 5**
Approval Level:	**Category 2: School Principal may delegate** Activities requiring Category 2 approval - Mustering, drafting (in crush or bailhead), capture, restraint and handling of non-free-living domesticated animals (grooming or holding an animal, collecting a milk sample, non-invasive measurements, leading or riding an appropriately trained animal). - Observation of particular animal behaviours, e.g. oestrus, parturition - School performance by outside agencies that have animals as part of their exhibits - Organisations bringing animals to school (such as Delta Society programs, RSPCA or PetPep). - Non-invasive measurement of body weight, body condition by visual assessment or condition scoring, growth, body proportions, pulse or blood flow, respiration, skin temperature (non-invasive), age by dentition, scrotum and testicles (palpation). - Familiarisation activities. - Administering water as a treatment. - Collection of wool, milk, faeces or urine samples (non-invasive). - Administering a topical treatment to the udder. - Coat care and grooming. **Category 3: School Principal may <u>NOT</u> delegate** Activities requiring Category 3 approval - Category 3 comprises many routine techniques but none which requires the breaking of skin or any blood loss (e.g. blood samples, ear tagging etc). - Non-invasive measurement of body condition by ultrasound - Measurement of mild dietary effects (provided the normal nutritional needs for the life stage of the animals are met), high/normal protein, high/normal energy, high/normal fat, palatability - Taming/gentling. - Training for competition or showing. - Tethering animals. - Collection of saliva. - Measurement of body temperature (invasive). - Administering drench or capsules orally. - Loading and unloading animals onto transporters. - Showing animals at school and away. - Foot bathing. - Flystrike treatment. - Jetting animals. - Restraining with ropes. - Pregnancy detection by external ultrasound. **Category 4: Animal Ethics Committee approval is required** Activities requiring Category 4 approval - Category 4 comprises many routine husbandry techniques which have the potential to be painful or distressing to the animal. - Administering intraruminal, subcutaneous or intramuscular injections. - Administering winged capsules orally. - Administering intravenous injections or intrauterine pessaries. - Ear marking/tagging of livestock. - Tattoo application. - Tail docking of piglets - Tooth trimming/removal in piglets. - Oestrus synchronisation. - Microchip tagging. - Commercial activities(for example growing turkeys for commercial sale) **Category 5: Animal Ethics Committee approval is required** Activities requiring Category 5 approval - Category 5 comprises many husbandry techniques which have the potential to be painful or distressing to the animal and

	require a level of expertise or supervision to ensure that adverse events do not occur. Collection of faeces, ruminal fluid or blood (invasive).
	• Nose ringing. • Freeze branding of cattle and horses. • Artificial insemination. • Semen collection.
Authority:	**Government Schools** – Department for Education Animal Ethics Committee **Independent and Catholic Schools** - Non Government Schools Animal Ethics Committee
Authority Approval Date:	1 August 2010

Disclaimer:	*This document may be updated at any time. You should check the web site regularly to ensure that you are meeting the most recent recommendations. If you note any concerns with the information provided (inadequate, incorrect) please contact the relevant AEC (Refer to bottom of Standard Operating Procedure).*
Licensing Requirement:	Not applicable
Compliance Requirement:	The keeping of this species requires approval from the School Principal or the AEC. It is recommended that this Standard Operating Procedure be followed as a minimum in the provision of appropriate care and housing for this species.

General Information:	Varietal range difference. The most common breeds are: • Large White • Landrace • Hampshire • Duroc • Berkshire • Large Black • Wessex Saddleback. **Movement:** There are restrictions on the movement of pigs. To ensure you comply with the appropriate legislation, contact Primary Industries and Resources SA.
Physical Attributes:	• **Size:** medium-sized farm animal; small varieties such as Australian Companion Pigs, are half the size of normal pigs. • **Weight:** adult weight 100 kg – 300 kg • **Age at adult size:** 12-24 months • **Life span: approximately 15 years** • **Sexually mature:** gilts may be mated from 9 months if well developed • **Weight at birth:** 1 kg – 2 kg • **Gestation period:** 112-115 days • **Number of offspring:** average litter 8-15 piglets (can be up to 20) • **Weaning age:** 4-6 weeks • **Body temperature:** 39ºC (+/- 0.5ºC) • **Heart rate:** 70 beats/minute (range 60-75) • **Respiration rate:** 20-50 breaths/minute
Behaviour:	Healthy pigs are vigorous and alert. They have moist snouts, warm ears and skin that is in good condition. They have a good appetite, firm dung and breathe steadily. Grunting is common when they are disturbed. Pigs generally seek the company of other pigs, as they are inquisitive by nature and playful with others. With the exception of pregnant sows, adult boars and sick animals, pigs should not be kept as solitary animals.

Environment:	The environment will depend upon the level of intensity that is suitable in the school situation. Wherever possible, the maximum amount of space should be provided, with access to the outdoors and environmental enrichment. Pigs require sufficient space to lie with limbs extended, to be able to stretch and move freely, to sleep, feed and dung. They should have a clean, dry place on which to lie, ensure there is sufficient space, exercise is usually obtained through interactions such as seeking food, water and playful behaviour that is often quite physical. Pigs require sunlight but are susceptible to sunburn and must have access to shady conditions. Particular care needs to be taken with white breeds. The optimum growth temperature for pigs is 22 0C. For farrowing sows, a range of 20°C-30°C and, for growing piglets, 15°C-30°C, is appropriate. For sleeping, pigs must be provided with dry nesting material, such as straw, which is placed well away from the excreting area.
	Use hoses in well-drained piggeries or shovels to remove solid waste. Alternatively, flushing drains, which are self cleaning, can be installed. Artificial or natural light is required, as it provides a better environment for growth and health. Ventilation of piggeries should be designed to let fresh air in without causing draughts. Fresh air is necessary to prevent the build-up of poisonous gases, in particular ammonia.
Feeding:	Use pellets as a commercial diet to suit animal type and growth stage, e.g. Pig Grower, Pig Finisher, Sow Pellets and Piglet Creep Feed. Note that the feeding of food scraps, called swill, is illegal. Most producers demand feed through to slaughter, but good references are available on diet formulation for the various stages of production. While piglets, growers, finishers and pregnant and lactating sows are demand fed, dry sows and boars should be fed daily in amounts sufficient to maintain condition. Clean, adequate supplies of water, placed in cool, shaded areas in hot weather are essential. If automatic nipple drinkers are used, they should always be fitted with fail-safe mechanisms.
Disease prevention:	Disease control methods and internal and external parasite control programs should be developed in consultation with veterinarians or the Animal Disease Hotline 1800 675 888. Treatments must be documented in the appropriate records.
Breeding:	
Handling:	
Hygiene:	

Signs of illness:	Stock health should be monitored at least daily and preferably more often. The first sign noticed is often a change in the animals' natural demeanour. They may be listless or lethargic. Closer examinations may show variations in: • gastrointestinal functions, such as diarrhoea; • weight loss or loss of appetite; • urogenital functions, e.g. abortion, infertility or abnormal discharges; or • respiratory functions, such as persistent coughing, gasping orpanting. There may be evidence of: • skin conditions, e.g. lesions, abnormal growths or red, blotchy patches, especially on the ears; • a tucked-up appearance, stiff gait, or abnormal posture; • excessive scratching or rubbing; or • swollen joints or limping. A failure to thrive or grow is another sign of illness. Pigs are prone to arthritis, foot abscesses and minor wounds. Sick animals should be separated for treatment.
Treatments:	If unable to identify and correct the cause of ill-health, assistance should be sought from veterinarians who are familiar with pigs. Treatments must be documented in the appropriate records.
Euthanasia:	When an illness or injury is such that recovery is unlikely then the animal must be euthanased by a veterinarian. Any death must be reported to the Animal Ethics Committee using the appropriate form (see section relating to ADVERSE EVENTS). Forms are available on the relevant websites – see contact details below.
Disposal/fate planning:	Pigs can be sold privately, at auction or consigned to abattoirs. Carcasses must be disposed of in accordance with local council regulations.
Holiday and weekend care:	Pigs need to be monitored, checked and fed regularly over weekends and holiday periods. Particular care should be taken during periods of extreme heat and cold for animals kept in sheds.
Approved activities:	Observation, breeding, farming
Resources:	
Websites:	www.pir.sa.gov.au www.sardi.sa.gov.au https://www.library.sydney.edu.au/
Texts:	McFarlane, A & G. (1996). Pig Keeping on a Small Scale. Kenthurst, NSW: Kangaroo Press.
Contact:	**Department for Education Animal Ethics Committee** https://edi.sa.edu.au/educating/programs-initiatives/animal-ethics Phone: 8463 5986 Email: education.animalethics@sa.gov.au

AEC STANDARD OPERATING PROCEDURES

SOP No:	**19**
SOP	**Rabbits**
Scientific Name:	***Oryctolagus cuniculus***
Category:	**2 or 3**
Approval Level:	**Category 2: School Principal may delegate** Activities requiring Category 2 approval - Observation of particular animal behaviours, e.g. oestrus, parturition - School performance by outside agencies that have animals as part of their exhibits - Organisations bringing animals to school (such as Delta Society programs, RSPCA or PetPep). - Breeding of mice or other appropriate animal in the classroom. - The appropriate care of classroom pets. - Non-invasive measurement of body weight, body condition by visual assessment or condition scoring, growth, body proportions, pulse or blood flow, respiration, skin temperature (non-invasive), age by dentition, scrotum and testicles (palpation). - Familiarisation activities. - Administering water as a treatment. - Collection of wool, milk, faeces or urine samples (non-invasive). - Animals on loan from the Nature Education Centre. (Note : the NEC will report directly to the Animal Ethics Committee on the number of animals loaned so schools should not include them in their returns) **Category 3: School Principal may <u>NOT</u> delegate** Activities requiring Category 3 approval - Category 3 comprises many routine techniques but none which requires the breaking of skin or any blood loss (e.g. blood samples, ear tagging etc). - Non-invasive measurement of body condition by ultrasound - Measurement of mild dietary effects (provided the normal nutritional needs for the life stage of the animals are met), high/normal protein, high/normal energy, high/normal fat, palatability - Taming/gentling. - Training for competition or showing. - Collection of saliva. Measurement of body temperature (invasive). - Showing animals at school and away.
Authority:	**Government Schools** – Department for Education Animal Ethics Committee **Independent and Catholic Schools** - Non Government Schools Animal Ethics Committee (NGSAEC)
Authority Approval Date:	1 August 2010

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Licensing Requirement:	Not applicable
Compliance Requirement:	The keeping of this species requires approval from the School Principal. It is recommended that this Standard Operating Procedure be followed as a minimum in the provision of appropriate care and housing for this species.

General Information:	Approximately 50 varieties of rabbits have been developed from the original wild rabbits of Europe and now they come in many sizes and colours. Fossils and Stone Age paintings in Spain suggest they originated in the Mediterranean and were spread to many countries by the ancient Romans who liked their meat. Queen Elizabeth raised them as pets and started a fad. They came to Australia with the first fleet, were abundant in Tasmania by 1822 and were released near Geelong in 1859 for 'sporting purposes'. Unfortunately in the wild they are probably responsible for the extinction of some South Australian mammals. Note; it is illegal to keep wild rabbits as pets. Pet rabbits make hardy and affectionate pets living for 4 -10 years in captivity. Rabbits can include the following varieties - white rabbits, angora longhaired varieties, lop eared rabbits and giant rabbits.
Physical Attributes:	• **Size (adult):** Varies with species
	• **Weight (adult):** Varies with species from small 2kg, large 4 -6 kg and giants over 8kg • **Life span:** Average 5-8 years • **Sexual maturity:** Can breed from approx 3-6 months till 3 years of age. Breeding from rabbits over 6 years of age is not recommended. • **Gestation period:** 30 days • **Number of offspring:** 4-10 kits, up to 4 litters per year. • **Weaning age:** 6-8 weeks
Behaviour:	• **Normal:** As social animals, rabbits prefer to live in a group of 2 ormore. However, if does (females) are included only one buck can be kept in the group. They normally present with shiny coats, bright eyes and alert ears. • **Socialisation:** If only one rabbit is kept it will need lots of attention although guinea pigs, chickens and even tortoises make suitable companions. • **Activity levels (hibernation etc):** They will be most active in the early morning and late afternoon resting during the day.

Environment:	• **Space:** The following cage aspects are required to provide basic housing for one or two rabbits.
	  ○ An area of 2 sq mts with a minimum length in one direction of 2mts (3 hops)
	  ○ Part solid and part wire base to allow grazing on lawns
	  ○ Wire mesh bases should be woven or flat mesh with 19 x 19mm squares
	  ○ Solid bases can include wood in hutches (remember it will get wet) or earth in outside enclosures
	  ○ For every additional rabbit add .5 sq mts of space
	  ○ The height must allow them to stand on their back legs with ears outstretched – minimum 500mm but preferably 900mm
	  ○ Fully enclosed hutches to ensure protection from predators (cats, dogs, foxes, birds of prey and humans!)
	  ○ If kept outside the hutch should be locked
	  ○ If they have a small hutch within a larger exercise enclosure the hutch must be fully enclosed and lockable
	  ○ Layers of bedding straw
	  ○ Remember over-crowded hutches place undue stress on the rabbits and may lead to fighting and injury.
	• **Movement:** Rabbits move by hopping and they need adequate space to hop around. If they are kept in small cages they need access to exercise pens. Such pens must ensure rabbits cannot dig out and predators cannot get in.
	• **Water:** Fresh water must be provided daily through sipper bottles or water bowls.
	• **Temperature:** Heat rather than cold will worry rabbits so place the cage in an airy spot preferably on the south side of a building. In hot weather, cover hutch with shade cloth or bring under verandas or inside. An effective way of cooling rabbits is to place frozen 2 litre bottles of water in the cage. In periods of cold they need sheltered, snug places to hide. Optimum temperatures are between 10-25°.
	• **Ventilation:** Adequate ventilation is important to maintain healthy rabbits. They should be protected from draughts, fumes and direct sunlight. If indoors they should be kept away from direct cooling and heating appliances.
	• **Lighting:** A natural source of light is essential but they should not be placed in direct hot sun outdoors or near windows and glass doors if kept indoors.
	• **Covering:** There must be a cover over the hutch to protect rabbits from external harms and to prevent them from escaping. Mesh top or part solid/ part mesh are good and help with ventilation and weather exposure.
	• **Shelter:** The enclosure must provide areas to shelter from the weather, retreats and hiding places “burrows”. Cardboard boxes, wooden boxes, large pipes are items that can be used. They need creative items to stimulate them – roots and twigs for gnawing, toys, straw, newspaper or peat moss for bedding and chewing. Outdoors a shade covering – shade cloth or trees, must be provided.
	• **Cleaning:** As the output of urine and faeces is high cages must be cleaned at least every second day. Replacing straw and paper, cleaning out pellet and water containers and removing uneaten vegetation. Rabbits can be trained to use a litter tray lined with sawdust to absorb the urine and faeces. Hutches should be scrubbed as required but at least monthly with mild detergents only.

Feeding:	• **Diet:** Rabbit pellets, grass hay or meadow hay, vegetables, fruit, bread, bran, oats can be fed to rabbits. Greens must be fresh and uneaten greens from previous day must be removed. If diarrhoea develops, reduce or discontinue with the greens for a while. Daily feeding and fresh water are essential. If using a dish of water, place it above the floor of the cage. Nursing mothers like milk and whole-grain bread soaked in milk. Rabbits are vegetarians, have teeth that grow rapidly and an extra long gut and special caecum to digest cellulose. • **Daily requirements:** A small handful of fresh pellets each day (don’t keep pellets for more than 60 days) and a handful selection of hay or green feed if they cannot graze on lawn areas. Pellets should make up no more than ¼ of the daily diet. Roughage (eg hay) should be at least ½ of the daily diet. • **Supplementary feeding:** Not necessary if a balanced diet is provided however with green feed do not use cabbage or cauliflower as it causes bloating and do not give vegetables from the turnip or rhubarb family as these are toxic. • **Equipment:** Sipper bottles and heavy feeding bowls.

Breeding:	• **Mating:** If not wanting to breed keep females together or keep a desexed male with a female. Mating occurs again following birth of a litter. Sexually mature at 5-8 months, the young doe should be introduced into the buck's hutch at 8-9 months (not vice versa as she is rather territorial). Pelvic bones harden and so it is important for a doe to have her first litter whilst young. • **Pregnancy:** A doe's oestrus cycle is 16 days and gestation takes 30 days. For several days before and after birth it is important not to disturb the doe but she will re-mate within a day or so of birth. Fresh straw and a dry nest box is important and can be given when you notice the doe begin to pull hair away from her nipples to expose them and then use the hair to line the nest. The young must not be exposed to bright light (sensitive eyes) but can be weaned at 6-8 weeks. They will drink 1:1 water and milk and eat pellets. Baby rabbits (kits) are often only fed once a day by themother. • **Fate planning:** Breeding stock must be re homed. They must NEVER be released into the environment.
Handling:	• **Human:** Pick up gently but firmly with both hands one around the chest and under its front legs and one hand to support its bottom. Never pick rabbits up by their ears or back legs. Some rabbits can be picked up by the loose skin on the scruff of the neck with one hand supporting their bottom, but many do not like this and may struggle and be injured. Rabbits will not usually urinate while held but may scratch or bite if they feel insecure. Toenails may need an occasional clipping, but rabbits clean themselves regularly. Rabbits have a light bone structure and must be handled gently to avoid fractures. • **Equipment:** Make sure they are handled in an enclosed area to avoid losing the rabbit. Difficult rabbits may be wrapped in a towel to assist with handling. Longhaired rabbits will need regular clipping and someone experienced in handling and clipping rabbits should dothis. • **Transporting:** Use small carry cages. Do not leave for long periods in heat or cold conditions. Do not transport on days that are over 32 degrees. • **Children:** Should handle rabbits under staff supervision and petting is preferable to holding.
Hygiene:	Thoroughly wash hands with soap and running water for at least 10-15 seconds after working with or handling any animals. Dry hands with clean paper, cloth towel or air dryer. Turn off the tap with the paper towel if possible. Follow first aid procedures should a bite occur.
Signs of illness:	**Indicators:** • Bright-eyed, active rabbits with clean, shiny fur are healthy. However, if the temperature is changed rapidly, a cold can develop. Shifting quickly from a hot room to a cold outside cage can cause this. Keep a sick rabbit warm and dry and it should recover, if not take the rabbit to aveterinarian. • Ear infections with symptoms of head shaking or ear-scratching should be treated on the advice of a veterinarian. • Lesions, abnormal growths, diarrhoea, weight loss, hair loss, excessive scratching, limping, listless, dribbling, coughing, gasping, panting all need checking. • Rabbit diseases are well documented and can readily be treated by a vet.
Treatments:	Assistance from a veterinarian should be sought for confirmation of conditions and treatment options.
Euthanasia:	When an illness or injury is such that recovery is unlikely then the animal must be euthanased by a veterinarian. Any death must be reported to the Animal Ethics Committee using the appropriate form (see section relating to ADVERSE EVENTS). Forms are available on the relevant websites – see contact details below.
Disposal/fate planning:	When no longer required rabbits must be re homed. They must NEVER be released into the environment. Bodies must be disposed of correctly in accordance with local council regulations.

Holiday and weekend care:	Rabbits generally cope with being rostered to responsible carers. They need to be checked and fed regularly over weekends and holiday periods if they remain on site. Records must be kept of 'off site' care. Cages and feeding equipment and supplies must be provided to carers, with contact details for emergencies.
Approved activities:	Observation
Resources:	
Websites:	www.rspca.org.au
Texts:	Gendron, K. (2000) *The Rabbit Handbook* New York, Barron's Pet Handbook Parsons. W. (2001) *Bunny Business* Animals Australia Vol 12 No 2 p20 Barnes, J. (2001) 101 Facts about Rabbits Ringpress Books Hibbert, C. (2004) *Looking after your pet Rabbit* White-Thomson Publishing Ltd. Piers, H. (1993) *Looking after your Rabbit* Frances Lincoln LTD GB. Pope, J. (1990) *Taking care of your Rabbit* Franklin Watts. Thomas, R. and Stutchbury, J. (1993) *Rabbits* Macmillan Education Australia. Coppendale, J. (2004) *You and your pet Rabbit* QED Publishing. Loves, J. (2003) Pets – *Guinea Pigs and Rabbits* Macmillan Education Australia Pty Ltd.
Contact:	**Department for Education Animal Ethics Committee** https://edi.sa.edu.au/educating/programs-initiatives/animal-ethics Phone: 8463 5986 Email: education.animalethics@sa.gov.au

AEC STANDARD OPERATING PROCEDURES

SOP No:	**20**
SOP	**Rats**
Scientific Name:	***Rattus norvegicus***
Category:	**2 or 3**
Approval Level:	**Category 2: School Principal may delegate** Activities requiring Category 2 approval - Observation of particular animal behaviours, e.g. oestrus, parturition - School performance by outside agencies that have animals as part of their exhibits - Organisations bringing animals to school (such as Delta Society programs, RSPCA or PetPep). - Breeding of mice or other appropriate animal in the classroom. - The appropriate care of classroom pets. - Non-invasive measurement of body weight, body condition by visual assessment or condition scoring, growth, body proportions, pulse or blood flow, respiration, skin temperature (non-invasive), age by dentition, scrotum and testicles (palpation). - Familiarisation activities. - Administering water as a treatment. - Collection of wool, milk, faeces or urine samples (non-invasive). - Animals on loan from the Nature Education Centre. (Note : the NEC will report directly to the Animal Ethics Committee on the number of animals loaned so schools should not include them in their returns) **Category 3: School Principal may <u>NOT</u> delegate** Activities requiring Category 3 approval - Category 3 comprises many routine techniques but none which requires the breaking of skin or any blood loss (e.g. blood samples, ear tagging etc). - Non-invasive measurement of body condition by ultrasound - Measurement of mild dietary effects (provided the normal nutritional needs for the life stage of the animals are met), high/normal protein, high/normal energy, high/normal fat, palatability - Taming/gentling. - Collection of saliva. - Measurement of body temperature (invasive). - Showing animals at school and away.
Authority:	**Government Schools** – Department for Education Animal Ethics Committee **Independent and Catholic Schools** - Non Government Schools Animal Ethics Committee (NGSAEC)
Authority Approval Date:	1 August 2010

Disclaimer:	*This document may be updated at any time. You should check the web site regularly to ensure that you are meeting the most recent recommendations. If you note any concerns with the information provided (inadequate, incorrect) please contact the relevant AEC (Refer to bottom of Standard Operating Procedure).*
Licensing Requirement:	Not applicable
Compliance Requirement:	The keeping of this species requires approval from the School Principal. It is recommended that this Standard Operating Procedure be followed as a minimum in the provision of appropriate care and housing for this species.

General Information:	Rats *Rattus norvegicus* - Brown, Sewer or Norway rat, are those which are used in laboratories and should not be confused with *Rattus rattus* - Black or Ship rat. The rats used extensively in laboratory trials are domesticated animals related to the common sewer rat. However, many years of selective breeding have developed very tame animals. They are very intelligent and make affectionate and fascinating pets. Colours have also been developed from pure white (albino) to hooded rats (coloured head), and of course, completely coloured bodies of black, brown or creamy grey. Rats are rodents and have sharp teeth for gnawing that grow continuously throughout their life. They are warm-blooded mammals. Rats are not native to Australia and came on the sailing ships from Europe. They are now wild in much of Australia particularly in cities and towns and are a pest and threat to native species. Wild rats should never be caught and kept as pets.

Physical Attributes:	• **Size (adult):** Average length nose to tail 25-35cm. • **Weight (adult):** Male 200g – 600g, female 250g – 400g. • **Life span:** 2-4 years.
	• **Sexual maturity:** At 3 months • **Gestation period:** 20 – 22 days. • **Number of offspring:** 6-12 kittens.
Behaviour:	• **Normal:** They are nocturnal and therefore more active during the night, early morning and late afternoon and will be resting more during the day. • **Socialisation:** They are used to being in colonies but must be kept according to the need to breed or not. Rats are communal animals and normally readily accept new arrivals. However, when new animals are added they should be observed for a while to ensure acceptance. It is not advisable to introduce an adult male to a cage of more adult males. Females accept other females readily at any age but males will fight to the stage of drawing blood and inflicting nasty wounds. Males should be introduced from birth. • **Activity levels (hibernation etc):** As young rats they will play a lot but as older rats they are not overly active but do love to socialise with others and with humans when very tame. As they are intelligent they enjoy Skinner boxes and mazes.

Environment:	• Space: The following cage aspects are required to provide basic housing for one or two rats. o An area of 500sq cms per rat or for larger rats 800sq cms (ie 500g or more). o Minimum for two small rats - Length 600mm, depth 300mm and height 250mm o Part solid and part wire lid for security and ventilation. o Wire mesh should be woven or flat mesh with very small squares o Glass or a material not easily chewed – they will chew through exposed areas of wood or plastic. o Water sipper with metal tubing. o Sawdust/wood shavings for base. Absorbent and free from dust and splinters, non-toxic, non-edible. o Dark sleeping area. o Varied floor levels. o A basket made from approximately 10mm wire suspended from the side of the cage is suitable for pellets. o Shredded paper, paper towel, cardboard boxes and tissues for sleeping areas, nesting and to play in. Remember over-crowded cages place undue stress on the mice and may lead to fighting and injury. • **Movement:** Rats do like some activity. They do not appear to need a lot of activity to maintain muscles or reduce fat. Young small rats will like exercise wheels. Boxes, ladders, ropes, hollow logs, tubes and ramps assist with movement. • **Water:** Fresh water must be provided daily through sipper bottles or water bowls. • **Temperature:** Optimum temperatures are between 18-25°. They should have good bedding and shelter to protect them from weather extremes. • **Ventilation:** Adequate ventilation is important to maintain healthy rats and to reduce odours. They should be protected from draughts, fumes and direct sunlight. If indoors they should be kept away from direct cooling and heating appliances. • **Lighting:** A natural source of light is essential but they should not be placed in direct hot sun or near windows and glass doors. An artificial light can be used but they must be on for no more than 12 hours during the day. Note that Albino rats have more light sensitive eyes and prefer low light areas. • **Covering:** There must be a cover over the cage to protect rats from external harms and to prevent them from escaping. Mesh top or part solid/ part mesh are good and help with ventilation. • **Shelter:** The cage must provide areas to shelter from the weather, retreats and hiding places. Cardboard boxes, wooden boxes, large pipes are items that can be used. They need creative items to stimulate them – roots and twigs for gnawing, toys, straw, newspaper or peat moss for bedding and chewing. Depending on the size of the cage landscape and play materials such as branches, leaves, flowers, hollow logs, cardboard tubes, large rocks, banksias or pine cones, mallee roots, pieces of native cherry can be provided which allow them to shelter and hide in. Rats are sensitive to loud noise and should be placed in a quiet area. Children should not bang on the glass. • **Cleaning:** As the output of urine and faeces is high cages must be cleaned regularly. The cage floor must be covered with absorbent material. This should be cleaned at intervals of approximately one week in order to keep the smell down to a minimum. Cages can be scrubbed and disinfected as required with mild detergent. This smell is caused because the males are territorial and 'mark'
	their territories. For this reason, in small cages only one male should be kept. If more males are to be kept, then a larger cage must be supplied. As rats are dependent on smell they are also sensitive to smell so avoid exposure to chemicals, perfumes, deodorisers. They can also smell other predators such as dogs, cats and should not be co located, as they will become very stressed.

Feeding:	• **Diet:** Rats are very quiet animals and do not move about more than necessary. Therefore be careful not to overfeed them. Rats are omnivorous. Commercially developed pellets have sufficient protein, vitamins and minerals to provide a balanced diet. Plenty of water should be available at all times. Rats will foul their food and water so these should be kept in dishes off the floor. • **Daily requirements:** A generous handful of seed and pellets every day. Greens can be fed 2-3 times per week. Wash the fruit and vegetable first before feeding. Lactating females need four times the daily amount of food and water. • **Supplementary feeding:** Seeds, hard shelled nuts, fruit, insects, occasional boiled egg and vegetables may be added. Never use insects that have been killed with insecticide spray. • **Equipment:** Water sipper bottle with metal tubbing, bowls.
Breeding:	• **Mating:** The rat has a continuous post partem oestrus cycle. • **Pregnancy:** The length of the oestrous cycle is 4-5 days, with the duration of the oestrous being approximately 12 hours. The gestation time for a rat is 21 – 23 days. Young rats may be weaned after 21 – 24 days. This varies with size and health of litters. The litter size may be 6 – 12. • **Fate planning:** Breeding stock must be re homed. They must NEVER be released into the environment.
Handling:	• **Human:** Rats are often very quiet and easy to handle. They may bite if frightened, provoked or driven into a corner. It is best to let the rat come forward to the cage opening if possible. Avoid loud noises and voices when handling rats. Small rats can be picked up by the base of the tail but large rats should only be caught by the tail and then their weight supported by a hand. Grasp the rat under the body or over the body high up over the animal's back with the thumb around the neck under the mouth. Even very young rats can be moved for cage cleaning if the adults are tame. Always remove the mother before her young and watch her when replacing young. • **Equipment:** Make sure they are handled in an enclosed area to avoid losing the rats. • **Transporting:** Use the cage or small-ventilated carry cages. Do not leave for long periods in heat or cold conditions. • **Children:** Should handle rats under staff supervision and petting is preferable to holding. Be aware of biting risks. Both staff and children should wash their hands before handling the rats as fingers that have been touching food smell like food and may be bitten by mistake! Rats should never be touched in the head area. Children should be seated with a towel in their lap.
Hygiene:	Thoroughly wash hands with soap and running water for at least 10-15 seconds after working or handling any animals. Dry hands with clean paper, cloth towel or air dryer. Turn off the tap with the paper towel if possible. Follow first aid procedures should a bite occur.
Signs of illness:	• Indicators: ○ Stretched out rather than foetal curling to rest. ○ Problems with or little movement. ○ Discharges. ○ Coughing or sneezing. ○ Excessive scratching. ○ Lack of balance. ○ Weight loss, raised fur, lumps, swellings, and infections. ○ Sores, scabs, fur loss, and excessive grooming. Sick rats should be segregated from the others and all cages cleaned thoroughly.
Treatments:	Assistance from a veterinarian should be sought for confirmation of conditions and treatment options.
Euthanasia:	When an illness or injury is such that recovery is unlikely then the animal must be euthanased by a veterinarian. Any death must be reported to the Animal Ethics Committee using the appropriate form (see section relating to ADVERSE EVENTS). Forms are available on the relevant websites – see contact details below.
Disposal/fate planning:	When no longer required rats must be re homed. As an introduced species they must

	NEVER be released into the environment. Bodies must be disposed of correctly in accordance with local council regulations.
Holiday and weekend care:	Rats generally cope with being rostered to responsible carers. They need to be checked and fed regularly over weekends and holiday periods if they remain on site. Records must be kept of 'off site' care. Cages and feeding equipment and supplies must be provided to carers, with contact details for emergencies.
Approved activities:	Observation
Resources:	
Websites:	www.quite.co.uk www.ozpets.com.au www.mypets.net.au
Texts:	Head, H. (2000) *My Pet Rats and Mice* Belithia Press Ltd. McNichols, J. (2003) *Keeping unusual pets – Rats* Reed Educational and Professional Publishing. Coppendale, J. (2004) *You and your Pet Rats* QED Publishing.
Contact:	**Department for Education Animal Ethics Committee** https://edi.sa.edu.au/educating/programs-initiatives/animal-ethics Phone: 8463 5986 Email: education.animalethics@sa.gov.au

AEC STANDARD OPERATING PROCEDURES

SOP No:	**21**
SOP	**Sheep**
Scientific Name:	***Ovis aries***
Category:	**2, 3, 4, 5**
Approval Level:	**Category 2: School Principal may delegate** Activities requiring Category 2 approval - Mustering, drafting (in crush or bailhead), capture, restraint and handling of non-free-living domesticated animals (grooming or holding an animal, collecting a milk sample, non-invasive measurements, leading or riding an appropriately trained animal). - Observation of particular animal behaviours, e.g. oestrus, parturition - School performance by outside agencies that have animals as part of their exhibits - Organisations bringing animals to school (such as Delta Society programs, RSPCA or PetPep). - Non-invasive measurement of body weight, body condition by visual assessment or condition scoring, growth, body proportions, pulse or blood flow, respiration, skin temperature (non-invasive), age by dentition, scrotum and testicles (palpation). - Familiarisation activities. - Administering water as a treatment. - Collection of wool, milk, faeces or urine samples (non-invasive). - Administering a topical treatment to the udder. - Coat care and grooming. - Tail tagging. - Animals on loan from the Nature Education Centre. (Note : the NEC will report directly to the Animal Ethics Committee on the number of animals loaned so schools should not include them in their returns) **Category 3: School Principal may <u>NOT</u> delegate** Activities requiring Category 3 approval - Category 3 comprises many routine techniques but none which requires the breaking of skin or any blood loss (e.g. blood samples, ear tagging etc). - Non-invasive measurement of body condition by ultrasound - Measurement of mild dietary effects (provided the normal nutritional needs for the life stage of the animals are met), high/normal protein, high/normal energy, high/normal fat, palatability - Taming/gentling. - Training for competition or showing. - Tethering animals. - Collection of saliva. - Measurement of body temperature (invasive). - Administering topical treatment by backline, spray or dip. - Administering drench or capsules orally. - Administering injections into the udder. - Coat clipping. - Hoof paring: sheep and goats. - Shearing of sheep and goats. - Dagging - Loading and unloading animals onto transporters. - Showing animals at school and away. - Foot bathing. - Flystrike treatment. - Jetting animals. - Using sire harnesses. - Restraining with ropes. - Pregnancy detection by external ultrasound. - Horn tipping. **Category 4: Animal Ethics Committee approval is required** Activities requiring Category 4 approval - Category 4 comprises many routine husbandry techniques which have the potential to be painful or distressing to the animal. - Administering intraruminal, subcutaneous or intramuscular injections.

	Administering winged capsules orally. Administering intravenous injections or intrauterinepessaries. Ear marking/tagging of livestock. Tattoo application.
	Crutching. Castration Tail docking of lambs Oestrus synchronisation. Microchip tagging. Commercial activities (for example growing turkeys for commercial sale) **Category 5: Animal Ethics Committee approval is required** Activities requiring Category 5 approval - Category 5 comprises many husbandry techniques which have the potential to be painful or distressing to the animal and require a level of expertise or supervision to ensure that adverse events do not occur. Collection of faeces, ruminal fluid or blood (invasive). Fire branding horns of stud sheep. Artificial insemination. Semen collection.
Authority:	**Government Schools** – Department for Education Animal Ethics Committee **Independent and Catholic Schools** - Non Government Schools Animal Ethics Committee (NGSAEC)
Authority Approval Date:	1 August 2010

Disclaimer:	*This document may be updated at any time. You should check the web site regularly to ensure that you are meeting the most recent recommendations. If you note any concerns with the information provided (inadequate, incorrect) please contact the relevant AEC (Refer to bottom of Standard Operating Procedure).*
Licensing Requirement:	Not applicable
Compliance Requirement:	The keeping of this species requires approval from the School Principal or the AEC. It is recommended that this Standard Operating Procedure be followed as a minimum in the provision of appropriate care and housing for this species.

General Information:	**Varietal range difference:** Breeds commonly used in Australia can be divided into the following categories: • Fine wools, including Merino and Merino Comeback; • Short wools, including Dorset, Ryeland and Suffolk; • Long wools, including Border Leicester and Lincoln; • Dual-purpose breeds, including Corriedale and Polwarth; and • Carpet wools, including Drysdale and Tukidale Woolless, e.g. the Wiltshire Horn, which sheds its fleece. Schools and colleges that wish to maintain a sheep enterprise should restrict their choice to plain-bodied sheep, such as the dual-purpose breeds and first-cross ewes. They provide wool production but are less prone to fly strike.
Physical Attributes:	• **Size:** at the shoulder, 600 mm-950 mm, depending on breed • **Weight:** range 35 kg-90 kg, but can be up to 150 kg • **Age at adult size:** approximately 2 years • **Average life span:** 8-13 years • **Body temperature:** 39^{O}C (+/- 0.5 ^{O}C) • **Heart rate:** 75 beats/minute (range 50-80) • **Respiration rate:** 15-40 breaths/minute
Behaviour:	Sheep are gregarious animals, moving and responding as groups. This behaviour pattern significantly facilitates moving, working and identifying individual animals with problems: for example, when ewes are about to lamb, they become extremely agitated and move away from the main body of the flock. The same may be true for animals displaying the first signs of ill-health or poor nutrition.

Environment:	Sheep perform well in open pastures that have plenty of water available as well as shelter from wind, rain and sun. If sheep are housed intensively, each pen should be designed to hold no more than four animals and should provide at least 2.25 m2 per sheep. Paddocks must provide adequate protection from predators. Shelter is essential to provide shade and protection from cold, windy and wet weather, particularly for newborn lambs and newly-shorn sheep, which are particularly susceptible to cold, wet conditions. If sheep are to be housed for lengthy periods, wooden slatted floors, with adequate sub-floor and room ventilation, are best. This ensures that wool damage (staining), fleece rot and fly strike are minimised and facilitates cleaning of pens. Feed bins
	should be off the ground and automatic waterers, which supply clean, fresh water at all times, must be installed and checked daily. Feed and water containers must be cleaned regularly. For sheep in pens, care needs to be taken that the slatted floors do not cause cold, draughty conditions. Ventilation must be sufficiently effective to prevent them becoming humid or damp and to avoid a build-up of ammonia. **Pens should be cleaned daily.**
Feeding:	Sheep are efficient in terms of digestion, with good-quality pasture comprising a balance of grasses and legumes. However, care must be taken when sheep are put on pastures with high legume content, as bloat can occur. Readily-accessible, fresh, clean water is needed for efficient growth. When feeding by hand, introduce new food types slowly and carefully. Feed plenty of high-quality roughage in small amounts at frequent intervals. Do not feed excessive amounts of grains. The carrying capacity of sheep on pasture is based on the average annual feed availability and is expressed in terms of Dry Sheep Equivalent/hectare (DSE rating). One DSE is the amount of feed required to maintain a 50 kg wether. A cross-bred ewe with a five-week-old lamb has a DSE rating of 2.9. Monitoring of live weight and condition scoring will indicate the adequacy of the feed conditions. Young lambs are suckled or fed milk replacement. For older sheep, grazing is the most economical method. Supplementary feeding with hay and concentrate mixes may be necessary. If the sheep are always grazed, local veterinarians or Primary Industries and Resources SA should be consulted to determine whether there is a need for specific supplementation. The quantity of feed required varies with the animals' weight, stages of growth and stages of production. Hand feeding should be undertaken e twice daily for young lambs and daily for other sheep. Newborn lambs must get colostrum in the first 24 hours. A clean, fresh and reliable water supply is necessary. The moisture content of the animals' feed will determine the quantity of water they require.
Breeding:	• **Weight at birth:** 2.5 kg-5 kg. These are average weights and final birth weight depends on the age of the ewe, the feeding regimen, the breed and whether the birth is single or multiple. • **Gestation period:** 150 days (range 144-151 days) • **Number of offspring:** normally a single lamb, but twinning does occur. Some breeds twin more commonly than others: for example, Poll Dorset. • **Weaning age:** approximately 5 months. • **Range of breeding ages:** puberty varies from 8-12 months. Most ewes are mated for the first time at 18 months
Handling:	Sheep need to be handled calmly and with care to prevent distress and injury to the animals and their handlers. A set of solid yards, preferably including a drafting race, simplifies handling. Sheep kept in schools and colleges learn routines quickly and respond to food incentives. Sheep must be shorn by experienced shearers on a yearly basis (except the woolless breeds). See www.shearingworld.com for the latest shearing patterns. **Movement:** There are a number of restrictions on the movement of sheep. To ensure that you comply with these restrictions, contact Primary Industries and Resources.

Hygiene:	**Disease prevention:** Disease control methods and internal and external parasite control programs should be developed in consultation with veterinarians or Primary Industries and Resources SA. Information can be obtained from the Animal Disease Hotline 1800 675 888.
Signs of illness:	Stock health should be monitored at least daily and, preferably, more often. The first sign of ill health may be noticed as a change in the sheep's' natural demeanour. They may be listless or lethargic. On closer examination, a sick sheep may display: • disorientation • lethargy • changed feeding habits • scouring
	• nervousness • ocular or nasal discharge • separation from or lagging behind the main body of theflock • lameness • ill-thrift or wasting • abnormal gait or a reluctance to rise. A failure to thrive or grow is another sign of illness. Common ailments among sheep include mastitis, bloat, internal parasites, footrot and flystrike.
Treatments:	If you are unable to identify and correct the cause of ill-health, assistance should be sought from veterinarians who are familiar with sheep.
Euthanasia:	In the case of a sheep becoming so sick, diseased or injured that recovery is unlikely or undesirable, on humane grounds euthanasia must be arranged with a veterinarian or a person competent in the technique for sheep. Any death must be reported to the Animal Ethics Committee using the appropriate form (see section relating to ADVERSE EVENTS). Forms are available on the relevant websites – see contact details below.
Disposal/fate planning:	Sheep can be sold privately, at auction or consigned to abattoirs. Carcasses must be disposed of in accordance with local council regulations.
Holiday and weekend care:	Sheep need to be monitored, checked and fed regularly over weekends and holiday periods.
Approved activities:	Observation, breeding, farming.
Resources:	
Websites:	www.pir.sa.gov.au www.sardi.sa.gov.au www.adelaide.edu.au/ANZCCART www.ufaw.org.uk https://www.library.sydney.edu.au/
Texts:	Crean, D. (1997) *Sheep Management and Wool Production* Port Melbourne, Inkata Press.
Contact:	**Department for Education Animal Ethics Committee** https://edi.sa.edu.au/educating/programs-initiatives/animal-ethics Phone: 8463 5986 Email: education.animalethics@sa.gov.au

AEC STANDARD OPERATING PROCEDURES

SOP No:	**22**
SOP	**Snakes**
Scientific Name:	**Varies**
Category:	**2 or 3**
Approval Level:	**Category 2: School Principal may delegate** Activities requiring Category 2 approval - Observation of particular animal behaviours, e.g. oestrus, parturition - School performance by outside agencies that have animals as part of their exhibits - Organisations bringing animals to school (such as Delta Society programs, RSPCA or PetPep). - Breeding of mice or other appropriate animal in the classroom. - The appropriate care of classroom pets. - Non-invasive measurement of body weight, body condition by visual assessment or condition scoring, growth, body proportions, pulse or blood flow, respiration, skin temperature (non-invasive), age by dentition, scrotum and testicles (palpation). - Familiarisation activities. - Administering water as a treatment. - Collection of wool, milk, faeces or urine samples (non-invasive). - Animals on loan from the Nature Education Centre. (Note : the NEC will report directly to the Animal Ethics Committee on the number of animals loaned so schools should not include them in their returns) **Category 3: School Principal may <u>NOT</u> delegate** Activities requiring Category 3 approval - Category 3 comprises many routine techniques but none which requires the breaking of skin or any blood loss (e.g. blood samples, ear tagging etc). - Non-invasive measurement of body condition by ultrasound - Measurement of mild dietary effects (provided the normal nutritional needs for the life stage of the animals are met), high/normal protein, high/normal energy, high/normal fat, palatability - Taming/gentling. - Collection of saliva. - Measurement of body temperature (invasive). - Showing animals at school and away.
Authority:	**Government Schools** – Department for Education Animal Ethics Committee **Independent and Catholic Schools** - Non Government Schools Animal Ethics Committee (NGSAEC)
Authority Approval Date:	1 August 2010

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Licensing Requirement:	May apply to some species. Reptiles require a license - 'Keep and Sell' Permit, before keeping or breeding is permitted. Check the department of Environment and Heritage web site when considering a reptile. www.environment.sa.gov.au Reptiles must be obtained from a licensed keepers breeding stock.
Compliance Requirement:	The keeping of this species requires approval from the School Principal. It is recommended that this Standard Operating Procedure be followed as a minimum in the provision of appropriate care and housing for this species.

General Information:	Snakes are reptiles and, unlike birds or mammals, are cold-blooded creatures whose body temperature changes as the air temperature changes. Snakes are in two main groups venomous and non-venomous. NO venomous snakes must be kept on any site. Most of the varieties of pythons sold in licensed outlets respond well to handling. Other types require a dedicated keeper and specialised facilities and should not be attempted. Snakes have an unwarranted reputation and suffer terribly from humans killing them and from destruction of their habitats worldwide. Many are now endangered. Snakes have scales and feed on a diet of live food. They kill their prey by squeezing it. Once their prey is dead they swallow it whole. They move by slithering along the ground or through the tree branches. They have no eyelids or external ears.
	There are approximately 140 land snakes and 30 sea snakes in Australia of which about 100 are poisonous with only about a dozen who can kill humans. Many species are endangered and snakes must not be collected from the wild, as it is illegal without a 'Take' or 'Rescue' Permit. They are tolerant of human handling but are not affectionate animals. They should not be carried around. They can be defensive and bite. They are very food orientated and may attempt to bite anything that moves – including fingers! Never spray chemicals or fumes near snake enclosures. Reptiles need specialised care – caging and food. The site should consider its capacity to store-frozen mice or rats on site safely and hygienically. Please remember it is against the Animal Welfare Act for live mice and rats to be fed to reptiles. Check the species thoroughly that you are interested in keeping to ensure you can provide for its needs. Also note the length of the lifespan for reptiles is considerable and means the animal needs care for several decades. They are not a short-term option. The information in this fact sheet is generic.
Physical Attributes:	• **Size (adult):** They can vary from 30cms up to several metres in length. Children's Pythons grow up to a metre and Carpet Pythons can grow up to 4 metres. • **Weight (adult):** Varies with species. • **Life span:** Varies with species but many live for 10-15 years, Carpet Pythons can live for 20 years, Children's Pythons for 30 years. • **Sexual maturity:** Varies with species. Carpet Pythons are mature at 3 years. • **Gestation period:** Varies. Carpet Pythons incubate their eggs for 10-15 weeks. • **Number of offspring:** Varies. Carpet Pythons lay up to 18 eggs and Children's Pythons lay 7 eggs.
Behaviour:	• **Normal:** Depending on the species there will be variations in the activity levels of reptiles. They should however appear alert, eat well and have good condition to their body and scales. They should shed their skins at regular intervals. • **Socialisation:** Many reptiles live solitary lives but some smaller species may live in colonies. Snakes should generally be kept on their own or have been together from a young age. • **Activity levels (hibernation etc):** Many reptiles come out during the heat of the day to warm themselves. Others are nocturnal. Many species hibernate during the cooler winter months. In spring they are particularly active as it is mating time.

Environment:	• **Space:** At a minimum the snake should be able to comfortably move around the enclosure, climb and turn freely. The enclosure should be of a reasonable length and at least half as wide.
	  ○ A glass or glass fronted timber tank.
	  ○ Ventilated top for tank.
	  ○ Light fitting and UV bulb (for heating and to simulate sunlight).
	  ○ Thermometer.
	  ○ Water and food dishes.
	  ○ Landscape materials, eg soil, branches, leaf litter and rocks.
	  ○ The size of the tank will determine the number and type of snakes kept.
	• **Movement:** Snakes slither along the ground and through trees. They can support their weight while seeking out an object to crawl onto or up. They can move and climb very rapidly. They use their tongue to detect smells. They can feel vibrations.
	• **Water:** Clean water must always be available. Although they can get moisture from their food never let the water pot dry out. Water dishes should be shallow large heavy containers as snakes may get in the pot.
	• **Temperature:** Snakes like to soak up heat from their environment – and can often be found 'sunning' themselves. Once the tank has been landscaped, attach the heater to the lid at one end of the tank, over the rocks or branches. This provides a 'hot spot" at one end and a cooler area at the other. The air temperature in the tank should be 24 - 27°C. Keep the tank away from direct sun, which will increase the temperature.
	• **Lighting:** Snakes like to be dark for at least 10-12 hours a day. The heat source should not produce excessive light.
	• Covering: All enclosures must have a mesh covering.
	• **Shelter:** The enclosure should provide an area for refuge from heating, lights, action and other snakes. This can be created with plants, logs and rocky overhangs.

	• **Cleaning:** Uneaten food should be removed the day after feeding. Water should be changed daily. Any faeces or soiled areas should be removed every few days. The whole enclosure should be cleaned once a term. Soils and items used in creating a natural environment should be cleaned and changed at this time. Creating a 'new' design in the space will stimulate the snake to re explore.
Feeding:	• **Diet:** When keeping snakes they require recently killed frozen food such as mice or rats. Small invertebrates can be fed live to young snakes eg crickets. Frozen mice and rats need to be thawed and warmed gently in warm water before feeding. • **Daily requirements:** Snakes eat a large amount of food at a time and then take a long time to digest it. Some species can unhinge their jaws to consume very large prey. Young snakes can be fed once a week – 7-10 small newborn mice or crickets, juvenile snakes every 7-10 days – 1 large mouse and adult snakes every 2-3 weeks – 2 large mice or one rat. Allow the snake a few undisturbed days to digest its food. • **Supplementary feeding:** Should not be required. • **Equipment:** Large flat heavy water bowls. Tongs to hold food.
Breeding:	• **Mating:** Snakes will mate when both sexes are ready in spring with birth occurring in early summer. • **Pregnancy:** The female python lays eggs in hollow logs or dens where she curls around the eggs to incubate them. • **Fate planning:** Breeding should not occur on sites but any stock must be re homed. They must NEVER be released into the environment, as this may not be their suitable habitat.
Handling:	• **Human:** Scoop up the snake gently. Use one hand to hold its head and the other to support its body. Never hold with one hand and always support their body. Larger snakes may need two adults to support its weight. Ensure they are handled in an enclosed area to avoid them escaping. • **Equipment:** A large soft net bag should be used for capture or moving snakes. • **Transporting:** Snakes should be moved in ventilated carry boxes or cages. Transport quickly and do not leave unattended or allow the snake to over heat. • **Children:** Should not handle snakes however they can touch them gently avoiding the head area. Observation only. Children should not tap on glass.

Hygiene:	Thoroughly wash hands with soap and running water for at least 10-15 seconds after working or handling any animals. Dry hands with clean paper, cloth towel or air dryer. Turn off the tap with the paper towel if possible. All reptiles have the potential to transmit diseases. Keeping their enclosures clean and using good hygiene should assist with this. A range of protozoa and bacteria infections such as Salmonella sp can occur. Follow first aid procedures should a bite occur.
Signs of illness:	**Indicators**: • Not flicking its tongue. • Abrasions. • Mite infestation – place a pest strip in the cage but out of the snakes reach. • Appears lethargic, weight loss, lumps or swellings, difficulty moving, skin changes, infections, wounds. • Dull skin. • Not drinking or eating. • Vomiting. • Shedding problems.
Treatments:	Assistance from a veterinarian should be sought for confirmation of conditions and treatment options.
Euthanasia:	When an illness or injury is such that recovery is unlikely then the animal must be euthanased by a veterinarian. Any death must be reported to the Animal Ethics Committee using the appropriate form (see section relating to ADVERSE EVENTS). Forms are available on the relevant websites – see contact details below.
Disposal/fate planning:	When no longer required snakes must be re homed. They must NEVER be released into the environment. Bodies must be disposed of correctly in accordance with local council regulations.
Holiday and weekend care:	Snakes should not be rostered off site. They need to be checked and fed regularly over weekends and holiday periods.
Approved activities:	Observation
Resources:	
Websites:	www.reptilepark.com.au www.australiazoo.com.auw ww.australianexplorer.com www.reptilepark.com.au
Texts:	Hernandez-Divers, S. (2003) *Keeping Unusual Pets – Snakes* Reed Educational and Professional Publishing Ltd. Cogger, H. (1992) *Reptiles and Amphibians* of Australia Reed Books. Wilson and Swan. (2003) *A Complete Guide to Reptiles of Australia* Reed New Holland Australia Pty Ltd. Readers Digest (2005) *Encyclopedia of Australian Wildlife* Readers Digest Australia Pty Ltd. Ehmann, H. (1992) *Encyclopedia of Australian Animals – Reptiles* Collins Angus and Robertson Pty Ltd.
Contact:	**Department for Education Animal Ethics Committee** https://edi.sa.edu.au/educating/programs-initiatives/animal-ethics Phone: 8463 5986 Email: education.animalethics@sa.gov.au

AEC STANDARD OPERATING PROCEDURES

SOP No:	**23**
SOP	**Tortoises**
Scientific Name:	***Emydura macquarii* (Murray Short Necked)** ***Cheloddina longicollis* (Common Long Necked)**
Category:	**2 or 3**
Approval Level:	**Category 2: School Principal may delegate** Activities requiring Category 2 approval - Observation of particular animal behaviours, e.g. oestrus, parturition - School performance by outside agencies that have animals as part of their exhibits - Organisations bringing animals to school (such as Delta Society programs, RSPCA or PetPep). - Breeding of mice or other appropriate animal in the classroom. - The appropriate care of classroom pets. - Non-invasive measurement of body weight, body condition by visual assessment or condition scoring, growth, body proportions, pulse or blood flow, respiration, skin temperature (non-invasive), age by dentition, scrotum and testicles (palpation). - Familiarisation activities. - Administering water as a treatment. - Collection of wool, milk, faeces or urine samples (non-invasive). - Animals on loan from the Nature Education Centre. (Note : the NEC will report directly to the Animal Ethics Committee on the number of animals loaned so schools should not include them in their returns) **Category 3: School Principal may <u>NOT</u> delegate** Activities requiring Category 3 approval - Category 3 comprises many routine techniques but none which requires the breaking of skin or any blood loss (e.g. blood samples, ear tagging etc). - Non-invasive measurement of body condition by ultrasound Measurement of mild dietary effects (provided the normal nutritional needs for the life stage of the animals are met), high/normal protein, high/normal energy, high/normal fat, palatability - Taming/gentling. - Collection of saliva. Measurement of body temperature (invasive). Showing animals at school and away.
Authority:	**Government Schools** – Department for Education Animal Ethics Committee **Independent and Catholic Schools** - Non Government Schools Animal Ethics Committee (NGSAEC)
Authority Approval Date:	1 August 2010

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Licensing Requirement:	Not applicable
Compliance Requirement:	The keeping of this species requires approval from the School Principal. It is recommended that this Standard Operating Procedure be followed as a minimum in the provision of appropriate care and housing for this species.

General Information:	Freshwater tortoises are reptiles with clawed and webbed feet. They live on land and in water. They breathe air and need to be able to reach the surface easily. They are heavily armoured with a shell. The carapace above connected to the plastron underneath. They are cold-blooded animals. Baby tortoises are usually available in summer from pet shops. They are bred for pets and not taken from the wild. No tortoise should be collected from the wild as it is illegal.
Physical Attributes:	• **Size (adult):** 25-48cm top shells. • **Weight (adult):** Varies with size. • **Life span:** 10-20 years. • **Sexual maturity:** Murray short necked males 5-6 years, females 9-11 years. • **Gestation period:** However incubation for Murray's is 65-85 days and Common is 120-180 days. • **Number of offspring:** Females lay 10-15 eggs in holes dug in the banks**.**

Behaviour:	• **Normal:** Tortoises are active during the day and rest at night. • **Socialisation:** Generally once past the baby tortoise stage a tank will only be suitable for one tortoise. In large ponds several tortoises can live together. • **Activity levels (hibernation, moulting etc):** They will be slow and sluggish during winter. If they are housed outside or in cold tanks they will hibernate. If they are housed indoors in warmer tanks they are unlikely to hibernate. Their temperature lowers and their heart beat slows during this time. Tortoises also shed their outer skin (scale like pieces). This can occur at any time of the year.
Environment:	• **Space:** Outside ponds require; old bath, fibre glass pond, baby's bath – flush with the ground or ramped to allow the tortoise to crawl out. Outside enclosures MUST be fenced 1 metre high and 30 cm below ground. They must also have a wire roof to prevent predator attacks. Shade – cloth or vegetation is essential. Some natural materials – soil, bark leaves, sand for them to crawl over, plants etc enhance the environment. Ensure children cannot fill the pond with items. Indoors you will need an aquarium. Initially with baby tortoises this can be small with half pond and half garden area. Remember they must be able to climb out or will tire and drown. As they grow they will need larger tanks. They should be able to swim and turn freely, dive under the water and come out onto rocks. Smooth pebbles can be placed on the bottom of the tank. • **Movement:** Tortoises have four legs. They can swim strongly and walk well. When necessary they can move very fast both in water and on land. They retract their legs and head into their shell, particularly for defence. • **Water:** Ponds and tanks can be filled with tap water. In South Australia mains water is safe for tortoises after the Chlorine or Chloramine has been removed. Chlorine, and the chlorine part of Chloramine, can be removed by adding one of the common aquarium water conditioners. Note that in some areas of South Australia, including the Adelaide Hills, the level of Chloramine added is very high and up to five times the recommended dose of water conditioner may need to be used. Tap water should be allowed to stand for at least 12 hours to allow the chlorine to evaporate. Good quality rainwater can be used, with a rainwater conditioner. Most bore and spring waters are suitable for tortoises. Tortoises are not affected by alkaline conditions, but prolonged acidity is harmful. Preferably the water should be a room temperature. Water can be partially changed every few weeks and fully changed each term or as required. • **Temperature:** Temperatures should remain between 20-30°C. Water temperature should not exceed 30°C. Tanks should not be exposed to direct sunlight in summer. The rest of the year they can be placed near a window to ensure they receive sunlight for strong bone growth. Severe fluctuations of water temperature may cause respiratory illness. • **Filtration:** Essential for providing the tortoise with oxygen absorption in the water and keeping the water clean. The rate of circulation should be moderate. Filtration is not required but helpful in outdoor ponds. • **Lighting:** Where natural lighting or time outside in the sun is not provided a light is necessary. • **Covering:** Where the tortoises are at risk from younger children or where the water is closer than 20cm to the top of the aquarium a glass and mesh covering over the aquarium should be provided. DO NOT spray chemicals near tanks. • **Shelter:** The aquarium should provide an area for refuge from lights and action. This can be created with plants and rocky overhangs or a towel at one end of the tank. • **Cleaning:** It is recommended that conditioned water of the same temperature be used to replace approx 25% of the water each week or two. Let the water stand for ½ day before adding. Regular removal of solid waste is required. To clean the whole tank clean the glass with a clean cloth. Rinse the tank carefully and fill again with conditioned water. Bacterial scum growing on the tank must be removed regularly as it could cause illness. Rocks and gravel should be rinsed before replacing
Feeding:	• **Diet:** Tortoises eat in water. If the water is too cold or they are preparing for hibernation they cannot digest the food and may not feed. Food includes turtle pellets, frozen turtle meat blocks (thaw to feed), fish, meat, and shrimps. To avoid soiling the main tank consider using a smaller 'feeding' tank/container. • **Daily requirements:** Adults can be fed 3-4 times a week, baby tortoises daily or twice daily. • **Supplementary feeding:** Slugs, snails, worms and insects can be provided. • **Equipment:** Remove uneaten food from the tank after feeding. A piece of fine feeding wire or thick fishing line can be used to dangle food for baby tortoises and to stimulate them to eat.
Breeding:	• **Mating:** Little is known about their mating and breeding.

	• **Pregnancy:** The female goes ashore to excavate a hole in which to lay the eggs where they incubate. • **Fate planning:** Tortoises are unlikely to breed unless they have suitable environments for laying eggs. Breeding stock must be re homed. They must NEVER be released into the environment.
Handling:	• **Human:** Tortoises can be handled safely by adults. Be aware they may be frightened and struggle. Do not drop them. One hand at the front side and one hand at the rear or one hand on either side will assist. Do not crush the tortoise. Do not touch their head. Baby tortoises should be handled as little as possible. They suffer pain, fear and stress and should be handled carefully. • **Equipment:** They can be wrapped in a towel to carry them. • **Transporting:** Tortoises can be transported in an enclosed ventilated box or container. Transport quickly and do not leave unattended or allow the tortoise to heat. Do not transport on days that are over 32 degrees. • **Children:** Should not handle tortoises. Observation only. They can sit in circles and observe the tortoises moving, they can touch the shell but not the head. Do this in an area where the turtle cannot escape.
Hygiene:	The wastewater from tank cleaning must not be discarded into the stormwater drains or septic tank systems. It can be placed onto gardens or it must be treated with 1:5 ratio of bleach to water and be poured into the toilet. Thoroughly wash hands with soap and running water for at least 10-15 seconds after working or handling any animals. Dry hands with clean paper, cloth towel or air dryer. Turn off the tap with the paper towel if possible. All reptiles have the potential to transmit diseases. Keeping their enclosures clean and using good hygiene should assist with this. A range of protozoa and bacteria infections such as Salmonella sp can occur. Follow first aid procedures should a bite occur.
Signs of illness:	• **Indicators:** loss of appetite, lethargic, skin lesions, pink skin, injuries, failure to thrive, and soft shell. NEVER drill a hole in their shell. If their shell becomes covered in algae DO NOT use hard scourers, chemicals or scrub theirshell.
Treatments:	Assistance from a veterinarian should be sought for confirmation of conditions and treatment options. Many aquarium treatments are not suitable for tortoises and may cause further distress or death.
Euthanasia:	When an illness or injury is such that recovery is unlikely then the tortoise must be euthanased by a veterinarian. Any death must be reported to the Animal Ethics Committee using the appropriate form (see section relating to ADVERSE EVENTS). Forms are available on the relevant websites – see contact details below.
Disposal/fate planning:	When no longer required tortoises must be re homed. As they must NEVER be released into the environment or waterways. Bodies must be disposed of correctly in accordance with local council regulations.
Holiday and weekend care:	As they require large tanks they would not cope well with being rostered to family carers. They need to be checked and fed regularly over weekends and holiday periods.
Approved activities:	Observation.
Resources:	
Websites:	https://www.zoossa.com.au/ www.worldwildlife.org https://www.reptilepark.com.au/
Texts:	Cann, J. 1998. *Australian freshwater turtles.* Beaumont Publishers, Singapore. Wilson, S. and G. Swan. 2003. *A complete guide to the reptiles of Australia.* New Holland Publishers, Sydney. Hartmut, W. (1998) *Turtles and tortoises – caring for them, feeding them, understanding them*. Barrons Educational Series
Contact:	**Department for Education Animal Ethics Committee** https://edi.sa.edu.au/educating/programs-initiatives/animal-ethics Phone: 8463 5986 Email: education.animalethics@sa.gov.au

AEC STANDARD OPERATING PROCEDURE

SOP No:	**24**
SOP	**Turkeys**
Scientific Name:	**Meleagris gallopava**
Category:	**2, 3, 4, 5**
Approval Level:	**Category 2: School Principal may delegate** Activities requiring Category 2 approval - Observation of particular animal behaviours, e.g. oestrus, parturition - School performance by outside agencies that have animals as part of their exhibits - Organisations bringing animals to school (such as Delta Society programs, RSPCA or PetPep). - The appropriate care of classroom pets. - Non-invasive measurement of body weight, body condition by visual assessment or condition scoring, growth, body proportions, pulse or blood flow, respiration, skin temperature (non-invasive), age by dentition, scrotum and testicles (palpation). - Familiarisation activities. - Administering water as a treatment. - Collection of wool, milk, faeces or urine samples (non-invasive). **Category 3: School Principal may <u>NOT</u> delegate** Activities requiring Category 3 approval - Category 3 comprises many routine techniques but none which requires the breaking of skin or any blood loss (e.g. blood samples, ear tagging etc). - Non-invasive measurement of body condition by ultrasound - Measurement of mild dietary effects (provided the normal nutritional needs for the life stage of the animals are met), high/normal protein, high/normal energy, high/normal fat, palatability - Taming/gentling. - Training for competition or showing. - Tethering animals. - Collection of saliva. - Measurement of body temperature (invasive). - Administering drench or capsules orally. - Loading and unloading animals onto transporters. - Showing animals at school and away. - Pregnancy detection by external ultrasound. **Category 4: Animal Ethics Committee approval is required** Activities requiring Category 4 approval - Category 4 comprises many routine husbandry techniques which have the potential to be painful or distressing to the animal. - Administering intraruminal, subcutaneous or intramuscular injections. - Administering winged capsules orally. - Administering intravenous injections or intrauterine pessaries. - Beak trimming. - Oestrus synchronisation. - Microchip tagging. - Commercial activities (for example growing turkeys for commercial sale) **Category 5: Animal Ethics Committee approval is required** Activities requiring Category 5 approval - Category 5 comprises many husbandry techniques which have the potential to be painful or distressing to the animal and require a level of expertise or supervision to ensure that adverse events do not occur. - Collection of faeces, ruminal fluid or blood (invasive). Artificial insemination. Semen collection.
Authority:	**Government Schools** – Department for Education Animal Ethics Committee **Independent and Catholic Schools** - Non Government Schools Animal Ethics Committee
Authority Approval Date:	1 August 2010

Disclaimer:	*This document may be updated at any time. You should check the web site regularly to ensure that you are meeting the most recent recommendations. If you note any*
	concerns with the information provided (inadequate, incorrect) please contact the relevant AEC (Refer to bottom of Standard Operating Procedure).
Licensing Requirement:	Not applicable
Compliance Requirement:	The keeping of this species requires approval from the School Principal or the AEC. It is recommended that this Standard Operating Procedure be followed as a minimum in the provision of appropriate care and housing for this species.

General Information:	
Physical Attributes:	• **Size:** to one metre tall • **Weight:** male 8-15 kg, female 4-8 kg • **Weight at birth:** 40-60 gm • **Incubation period:** 28 days • **Sexual maturity:** well grown, seven-months old pullets • **Healthy characteristics:** body temperature: 40-42^{o}C Heart rate: 180-340 beats/minute
Behaviour:	Turkeys are alert and active with an erect carriage. They cannot fly far and often scratch and peck as they investigate the surroundings. Turkeys may rush at objects and, if injured, may become cannibalistic.
Environment:	• **Space -** Stocking density should be reviewed periodically and adjusted as necessary for age, breed, strain and type of turkey, colony size, temperature, ventilation, lighting, quality of housing and occurrence of disease and cannibalism. Floor space under a hover brooder should be at least 90 cm2 for each poult. For birds up to six weeks of age, provide at least 900 cm2 a poult. From eight weeks of age, the minimum intensive space required for rearing is 0.6 m2 per bird. Grassed runs should have at least 15 m2 of pasture per bird. Rotate pastures between batches. Provide a shed with 1.2 m2 of roof per bird and allow 25 cm of roost space per bird. • **Movement and exercise -** Turkeys appreciate a ranging situation but can be successfully raised in more intensive situations. Model Code of Practice for the Welfare of Animals: Domestic Poultry (3rd edition) provides advice on the space allowances for turkeys. • **Temperature -** For day-old poults under a brooder, measured 10 cm above the ground at the rim of the brooder, the temperature, taken with a black bulb thermometer, should be 38oC. Every three days, lower the temperature 1o to 2oC to reach 21oC when the poults are four to six weeks of age. the poults are the best indicators of temperature. When it is too hot, they will disperse and they will huddle if it is too cold. When poults are weaned, the preferred temperature range is 20–28oC. Temperatures below 10oC and above 32oC cause stress. • **Light -** Birds kept in sheds must have reasonable light and not be kept in dark. The birds should experience a light and dark cycle. • **Ventilation -** Avoid draughts and chilling winds. Ventilation is required to prevent ammonia build-up in intensive situations. Ammonia causes as much distress to poultry as it does to humans. To prevent ammonia building up to the level where it becomes unpleasant, reduce the number of birds in a given area, clean out the litter and improve ventilation. • **Shelter -** Sufficient shelter is required to protect birds from extremes of climate such as temperature changes, wind, rain and direct sunlight. • **Bedding -** Use clean, dry litter of rice hulls, shavings from untreated timber, straw or sand. Cleaning Little cleaning is required if the litter is deep and kept dry. Make sure that equipment, such as nest boxes, is hygienic so that the disease risk is minimised. • **Nesting -** Suitable nesting material such as clean, dry sand, rice hulls, straw or untreated wood shavings should be provided. A nesting box should have a minimum size of 0.5 x 0.5 x 0.5 m and accommodate three or four birds. The nest should be reasonably dark and of sufficient size to isolate one bird from another, so that egg damage and aggressive behaviour from some birds during nesting time are avoided.

Feeding:	• **Type -** Commercially prepared turkey crumbles for poults, growers and adults. • **Quantity -** Ranges from a few grams per day for poults to up to 250 grams per day for adults. • **Regularity -** Ad lib preferred, at least twice per day, in the morning and evening. • **Essential dietary needs (variations**) - 28% protein ration for the first four weeks, 24% for the next four weeks and then reduced to 20% until grown. When the birds are young, use medicated rations to counter blackhead disease. • **Water -** Must be cool, clean and fresh and in sufficient quantity at all times.
Breeding:	
Handling:	Turkeys need to be handled calmly and with care to prevent distress and injury to the animals. Avoid chasing, which agitates the turkeys, and causes them to pile up in corners.
Hygiene:	
Signs of illness:	• diarrhoea • nasal discharge • sneezing • nervous signs or paralysis • inactivity, head under wing, feathers ruffled or isolated from group • a pale or purple comb • frequent shutting of eyes • little response when touched or pushed, or often pecked at by others. A failure to thrive or grow is another sign of illness.
Treatments:	If the cause of ill-health is unable to be identified and corrected, assistance should be sought from a veterinarian familiar with turkeys. Treatments must be documented in the appropriate records.
Euthanasia:	When an illness or injury is such that recovery is unlikely then the animal must be euthanased by a veterinarian. Any death must be reported to the Animal Ethics Committee using the appropriate form (see section relating to ADVERSE EVENTS). Forms are available on the relevant websites – see contact details below.
Disease prevention:	Disease control methods and internal and external parasite control programs should be developed in consultation with a veterinarian or Primary Industries and Resources SA. Treatments must be documented in the appropriate records.
Disposal/fate planning:	Turkeys can be sold privately, at auction or consigned to an abattoir. Carcases must be disposed of in accordance with local council regulations.
Holiday and weekend care:	Turkeys need to be monitored, checked and fed regularly over weekends and holiday periods. Care should be taken to more regularly check shedded birds in times of extreme heat and cold. Be mindful that essential service failures such as power and water can have catastrophic affects in a very short time.
Approved activities:	Observation, breeding, farming
Resources:	
Websites:	www.pir.sa.gov.au www.library.usyd.edu.au/VEIN/links/poultry.
Texts:	NSW Dept of Agriculture and Fisheries, Agfacts: Raising Turkeys, Australia. Reading, D. (1990) A Guide to Keeping Poultry in Australia, Penguin, Australia.
Contact:	**Department for Education Animal Ethics Committee** https://edi.sa.edu.au/educating/programs-initiatives/animal-ethics Phone: 8463 5986 Email: education.animalethics@sa.gov.au

AEC STANDARD OPERATING PROCEDURES

SOP No:	**25**
SOP	**Yabbies**
Scientific Name:	***Cherax destructor***
Category:	**2, 3, 4**
Approval Level:	**Category 2: School Principal may delegate** Activities requiring Category 2 approval • Observation of particular animal behaviours, e.g. oestrus, parturition • School performance by outside agencies that have animals as part of their exhibits • Organisations bringing animals to school (such as Delta Society programs, RSPCA or PetPep). • Breeding of mice or other appropriate animal in the classroom. • The appropriate care of classroom pets. • Non-invasive measurement of body weight, body condition by visual assessment or condition scoring, growth, body proportions, pulse or blood flow, respiration, skin temperature (non-invasive), age by dentition, scrotum and testicles (palpation). • Familiarisation activities. • Collection of wool, milk, faeces or urine samples (non-invasive). • Animals on loan from the Nature Education Centre. (Note : the NEC will report directly to the Animal Ethics Committee on the number of animals loaned so schools should not include them in their returns) **Category 3: School Principal may <u>NOT</u> delegate** Activities requiring Category 3 approval - Category 3 comprises many routine techniques but none which requires the breaking of skin or any blood loss (e.g. blood samples, ear tagging etc). • Measurement of mild dietary effects (provided the normal nutritional needs for the life stage of the animals are met), high/normal protein, high/normal energy, high/normal fat, palatability • Taming/gentling. • Measurement of body temperature (invasive). • Showing animals at school and away. **Category 4: Animal Ethics Committee approval is required** Activities requiring Category 4 approval • Aquaculture and related enterprises • Commercial activities (for example growing yabbies for commercial sale)
Authority:	**Government Schools** – Department for Education Animal Ethics Committee **Independent and Catholic Schools** - Non Government Schools Animal Ethics Committee (NGSAEC)
Authority Approval Date:	1 August 2010

Disclaimer:	*This document may be updated at any time. You should check the web site regularly to ensure that you are meeting the most recent recommendations. If you note any concerns with the information provided (inadequate, incorrect) please contact the relevant AEC (Refer to bottom of Standard Operating Procedure).*
Licensing Requirement:	Not applicable for observation purposes (Category 2 & 3). Commercial operations (Category 4) will need to meet a variety of local and state government requirements in relation to licences, permits, local council land use, use and discarding of water, conservation constraints and fisheries requirements.
Compliance Requirement:	If the keeping of yabbies on the site is purely for observation approval is required requires approval from the School Principal for Observation only applications (Category 2 & 3) or Commercial operations (Category 4) i.e. the purpose includes breeding, commercial aquaculture, measuring, weighing or scientific activity – refer also to Aquaculture SOP, approval by the Non Government Schools Animal Ethics Committee is required. It is recommended that this Standard Operating Procedure be followed as a minimum in the provision of appropriate care and housing for this species.

General Information:	Yabbies are crustaceans. They have three stages in their life cycle: egg - juvenile - adult. Yabbies have large claws used for defence, fighting, holding food and digging. They breathe by using their gills to absorb oxygen from the water. They draw water under the back of their exoskeleton (hard shell), over their gills and out

	through a hole near their head. They are generally green or brown in colour. Yabbies live in streams, lakes, dams and ponds in south-eastern Australia. In the water, yabbies like to hide under rocks, mud and branches. Predators such as humans, fish, turtles, birds and water rats eat Yabbies.
Physical Attributes:	• **Size (adult):** Approximately at 1 year 6cm, 2 years 10cms and 3 years 12cms. • **Weight (adult):** Approximately 100gms. • **Life span:** Average life span 3 years. • **Sexual maturity:** Usually when they are 10-20gms they can begin to breed. • **Gestation period:** 1-2 months. • **Number of offspring:** 200-1,000 eggs.
Behaviour:	• **Normal:** They are very adaptable and dependent on environmental conditions. They are very active and breed when conditions are right. Temperature, weather conditions (drought, flood) water quantity and quality determine the number of healthy yabbies in a water source. • **Socialisation:** Yabbies are aggressive and when several are together in a small space they will fight. • **Activity levels (moulting etc):** They shed their exoskeleton and grow a new one. This moulting occurs more often when they are growing faster. During this time they are very vulnerable and will lay 'shivering' on their side out of the water. It takes up to 2 days for the new exoskeleton to harden.
Environment:	**For observation purposes:** • **Space:** You will need an aquarium 60cm x 30cm x 30cm. There should be a gravel base. • **Movement:** They have four pairs of walking legs and a long thick tail. To move through the water quickly, they flap their tail. A flip with the tail will propel them backwards rapidly. • **Water:** Whilst they do not need water maintained as fish do they still need clean water. Change ¼ of the water every 3-4 weeks. • **Temperature:** Lighting and heating of the tank to 24 degrees will encourage breeding. • **Filtration:** An under gravel filtration system will assist to keep water clean. • **Ventilation:** Ensure no sprays or fumes are used around the aquarium. A mesh top will assist with ventilation. • **Covering:** Where the yabbies are at risk from younger children and to assist with preventing escapes the tank should be covered. • **Shelter:** The aquarium should provide an area for refuge from lights, action and other yabbies. This can be created with plants, rocks and rocky overhangs. If breeding occurs there needs to be lots of spots for the babies to hide. Removing the male may assist with their survival but be advised mothers may also eat them. They could be placed in a separate aquarium. • **Cleaning:** Regular daily removal of food waste is required. To clean the whole tank, remove and place the yabbies in a secure container. Rinse the tank carefully and fill again with gravel and items. Do not use chemicals. Rinse gravel through thoroughly. **For farming purposes:** *This needs to researched thoroughly before commencing – set up, feeding, harvesting and legal obligations.* • **Extensive Farming:** this uses pre-existing bodies of water – wetlands, dams. • **Intensive Farming:** This approach requires purpose built dams and ponds. Usually a 1mt deep, lined with plastic, earthen ponds, .25 hectares in size, pumping for drainage and harvesting. They also provide artificial hiding areas – tyres, pipes and pots.
Feeding:	• **Diet:** Yabbies eat algae, dead and decaying plants, and sometimes small fish insects or animals. They can be fed finely chopped vegetables and goldfish pellets. • **Daily requirements:** They only need a small amount of food each day – 1 pellet and ¼ teaspoon of vegetable matter. • **Supplementary feeding:** Feeding of fresh raw meat can occur occasionally but be advised they may hide the meat and this can result in fouling the water.
Breeding:	• **Mating:** The male deposits spermatophores at the base of the females rear walking legs. They tend to mate at night. • **Pregnancy:** Yabbies will only breed when the temperature is high enough and there is sufficient water. The female releases eggs into the spermatophores and

	fertilisation occurs. The fertile eggs attach to the underside of the females tail. A week after hatching they will move off the female. • **Fate planning**: They must NEVER be released into the environment or waterways.
Handling:	• **Human:** adults can easily handle yabbies. Pick them up at the body behind the pincers. Be careful not to squeeze too hard. • **Equipment:** Yabbies can be caught in nets or strainers as required. • **Transporting:** Yabbies should be transported in a container that has been lightly sprayed with water to maintain humidity or cover them with a wet cloth. Transport quickly and do not leave unattended or allow the yabby to heat. • **Children:** Children can also be taught how to pick up yabbies. Children should not knock on the tanks.
Hygiene:	Thoroughly wash hands with soap and running water for at least 10-15 seconds after working or handling any animals. Dry hands with clean paper, cloth towel or air dryer. Turn off the tap with the paper towel if possible.
Signs of illness:	• **Indicators:** failure to thrive, lethargic, difficulty moving, loss of limbs and injuries.
Treatments:	Assistance from a veterinarian should be sought for confirmation of conditions and treatment options.
Euthanasia:	When an illness or injury is such that recovery is unlikely then the animal must be euthanased by a veterinarian. Any death must be reported to the Animal Ethics Committee using the appropriate form (see section relating to ADVERSE EVENTS). Forms are available on the relevant websites – see contact details below.
Disposal/fate planning:	When no longer required yabbies must be re homed. They must NEVER be released into the environment or waterways. Bodies must be disposed of correctly in accordance with local council regulations.
Holiday and weekend care:	As they require specific conditions they would not cope well with being rostered to family carers. They need to be checked and fed regularly over weekends and holiday periods or taken home by staff.
Approved activities:	Observation, Commercial operations
Resources:	
Websites:	www.blueyabby.com www.amonline.net.au www.australian-aquaculturereportal.com www.nativefish.asn.au
Texts:	Fallu, R. (1992) *Yabbies for fun, fishing and farming*. Victorian Department of Food and Agriculture. Mosig, J. (1999) *The Australian Yabby Farmer*. Landlinks Press. Hunor, J. (1994) *Freshwater Crayfish Aquaculture in North America, Europe and Australia*. Haworth Press.
Contact:	**Department for Education Animal Ethics Committee** https://edi.sa.edu.au/educating/programs-initiatives/animal-ethics Phone: 8463 5986 Email: education.animalethics@sa.gov.au

Appendix 1 – Statistical Return Form

AEC 110

Government of South Australia
Department for Education

ANIMAL ETHICS COMMITTEE
PRESCHOOLS & CHILD CARE CENTRES

GUIDE TO COMPLETING THE TATISTICAL RETURN

Please record on this sheet, information regarding the number of animals kept or used by your school during the period 1 January to 31 December. Make sure that the number you record in the total column is the number of animals KEPT OR USED DURING THE YEAR, and not the number remaining at the end of the year. (It is realised that at times the two may be identical). Schools that have not kept or used live animals during the above period need only enter their school's name, number, address, animal ethics focus person (if you have one) and circle "Nil Animals".

Under the Provisions of the Animal Welfare Act 1985, all organisations involved in using animals for teaching purposes must establish an Animal Ethics Committee. The department is licensed by the department of Environment & Natural Resources and has the responsibility of monitoring the use of animals in all schools, preschools and child care centres

The department's AEC has the responsibility for approving the acquisition and use of animals in schools and is required by law to submit consolidated statistics in relation to proposed and actual animal use.

If your school, preschool or centre submitted a request for approval to keep animals during the year to either the PRINCIPAL/DIRECTOR or the AEC, you are now required to complete this form providing details regarding the actual number, species and nature of their use. It is important that an accurate return is submitted to this committee.

To enable the department's AEC to submit a consolidated Departmental return to the Minister responsible for Animal Welfare by the required date, please ensure that this form is returned no later than 20 February.

DO NOT RECORD animals borrowed from the Nature Education Centre.
You MUST record Animals purchased euthanased for dissection purposes e.g. Rats purchased frozen from IMVS etc.

Name of School:			
Address:			
		• Postcode:	
Telephone No:		• Fax No:	
Animal Ethics Focus Person:		• Position Held:	
Email:			

We certify that the above animals have been kept in accordance with the Animal Welfare Act 1985 and the Australian Code of Practice for the Use and Care of Animals for Scientific Purposes – 7th Edition 2004.

APPROVAL NUMBER
(issued when approval was granted)

Circle if appropriate • **NIL ANIMALS**

Signature Animal Ethics Focus Person	
Name of Principal	
Signature of Principal	Date

Please keep a copy of this return for your records and return the completed form to:

Executive Officer
Department for Education Animal Ethics Committee
Level 6
31 Flinders Street
Adelaide SA 5000

Telephone: 8463 6568
Fax: 8410 2534
Courier Round R 11/ 46

Website: https://edi.sa.edu.au/educating/programs-initiatives/animal-ethics

IMPACT ON ANIMAL – please use these codes to complete the Statistical Return below in the columns marked with *

1 Observation only – no direct contact with animal(s) (staff uses animal(s) as a stimulus for general classroom activities)
2 Observational with minor interference (eg. occasional handling by students, weighing, animal(s) is/are handled to familiarise students with animal behaviour & characteristics & to give students confidence in animal handling).
3 Minor conscious procedures (eg. blood collection, injections, stomach tubing, shearing)
4 Minor physiological challenge (eg. branding, dehorning, mulesing, beak trimming, castration, tail docking)
5 Death as an endpoint (slaughter of sheep, cattle, poultry resulting in processing of carcasses for human consumption)
6 Animal unconscious no recovery (eg rats purchased frozen for dissection purposes)
7 Physiological challenge (eg. Training of steers)
8 Minor operative procedure with recovery (eg. Teeth clipping of pig)
9 Surgery with recovery (eg. Castration)

PLEASE NOTE **If completing on line select the impact code from the pull down menus.**		**Observational Purposes ONLY**		**Agricultural/Aquaculture Purposes ONLY**	
	Type of animal	Number of animals kept	*Impact on Animal (select either code 1 or 2 from above)	Number of animals kept	*Impact on Animal (select codes from above)
NATIVE MAMMALS					
	Dasyurids (Kowaris, Dunnarts)				
	Koalas				
	Macopods (Kangaroos, wallabies, rat kangaroos etc)				
	Native rats/mice				
	Possums and gliders				
	Wombats				
	Other native mammals (specify)				
REPTILES					
	Lizards				
	Snakes				
	Turtles and Tortoises				
	Other reptiles (specify)				
AMPHIBIANS					
	Amphibians (tadpoles, frogs, axolotls)				
LAB MAMMALS					
	Ferrets				
	Guinea Pigs				
	Hamsters				
	Mice				
	Rabbits				
	Rats				
	Other lab mammals (specify)				
BIRDS					
	Native Captive (budgies, finches, cockatiels, canaries etc)				
	Poultry				
	Other Birds (specify)				
DOMESTIC MAMMALS – Agricultural Animals					
	Cattle				
	Deer				
	Goats				
	Horses				
	Pigs				
	Sheep				
	Other domestic mammals (specify)				
AQUATIC ANIMALS – some may be used for Aquaculture programs					
	Cephalopods				
	Crustaceans				
	Fish				
DISSECTION PURPOSES – e.g rats purchased frozen for dissection purposes					
	Rats				
	Other (specify)				

Appendix 2 – Adverse Events Report

AEC 102

Government of South Australia
Department for Education

Animal Ethics Committee
Level 6, 31 Flinders Street
Adelaide SA 5000

R 11 / 46

ANIMAL ETHICS COMMITTEE

ILLNESS/INJURY, DEATH OR UNEXPECTED INCIDENT REPORT – to be completed for each species

Send this form promptly to the department's AEC if an animal/s become ill or dies in unusual and unexpected circumstances or if there is an unexpected incident (eg: the animal is lost, injured, stolen)
Note: A copy of your Animal Use and Daily Health Record Form (AEC 101) must be attached with this form

Details of Site Name and Address	
Staff / Animal Ethics Focus Person	
Animal / Species and Number of animals affected	
Date of incident	

Signs of ill-health/injury/abnormal behaviour etc.	
Unusual/unexpected environmental conditions.	
Action taken *If a veterinarian was consulted, provide details: Name of veterinary practitioner, date and nature of consultation, and outcome of consultation. Attach relevant reports.*	
Probable cause of illness, injury, death or unexpected incident.	
Action to prevent future occurrence	

Staff / Animal Ethics Focus Person lodging this form	Name: Signed:	Date:

Appendix 3 – Animal Use & Daily Health Record

AEC 101

Government of South Australia
Department for Education

Animal Ethics Committee
Level 6, 31 Flinders Street
Adelaide SA 5000

R 11 / 46

ANIMAL ETHICS COMMITTEE

ANIMAL USE AND DAILY HEALTH RECORDS – keep a separate sheet for each species of animal on site

Note: This form Is to be used by sites for the on-going monitoring of the health of the animal. Describe details of animal use (i.e. any intervention), preventative health treatments and health monitoring including observing for signs of ill-health, checking feed, water and environmental conditions.

This record **must** be retained by sites and be available during site visit by the AEC.

If an animal becomes ill or dies in unexpected or unusual circumstances or there is an unexpected incident (eg: the animal is lost, injured, stolen), this Animal Health Record Form must be sent promptly to the department's Animal Ethics Committee together with the Illness/Injury, Death or Unexpected Incident Report (AEC 102)

Details of Site Name and Address	
Staff / Animal Ethics Focus Person	
Animal Type & Identification (eg: name)	

Date	Time	Description of Health Monitoring and General Care (eg Cleaning, Deworming ,Vaccinations, Veterinary visits)	Initials

Staff / Animal Ethics Focus Person lodging this form	Name: Signed:	Date:

Date	Time	Description of Health Monitoring and General Care (eg Cleaning Deworming ,Vaccinations, Veterinary visits)	Initials

Staff / Animal Ethics Focus Person lodging this form	Name: Signed:	Date:

Appendix 4 – Category 4 & 5 Application Form

AEC 100

DEPARTMENT FOR EDUCATION ANIMAL ETHICS COMMITTEE APPLICATION FORM FOR CATEGORIES 4 and 5 ACTIVITIES or NON LISTED ACTIVITIES

This form must be completed to gain approval to keep animals on site where activities in Categories 4 and 5 or Non Listed Activities are undertaken.

The Department for Education must comply with the Animal Welfare Act 1985 (the Act), the Animal Welfare Regulations 2012, and the Australian Code for the Care and Use of Animals for Scientific Purposes 8th Edition 2013 (the Code) in the acquisition, use (including all procedures) or care of animals for the purposes of teaching any science, research and/or experimentation. The department is licenced for this purpose.

Under the guidelines set out in the Code, schools must seek approval to use animals for teaching purposes and to keep them. The aim is to ensure protection is afforded to animals in schools and ethical practices are adhered to.

Applications for category 4 and 5 activities or non-listed activities must be submitted for approval to the Department for Education Animal Ethics Committee (AEC) by the school's Animal Ethics Focus person prior to undertaking any activities. Any Category 2 or 3 activities which are being performed in conjunction with category 4 or 5 activities must also be reported.

Separate "Species Information" sheets must be completed for each species of animal kept on site, including those housed together.

Approval length will be determined by the AEC.

Please note: approval is not required by the A to keep animals on site if the activities involving the animal are ONLY Categories 1 to 3.

A map of the site showing the livestock areas and location of animals must be attached to this application.

Name of School:			
Address:			
		Postcode:	
Telephone No:			

PIRSA PIC code (Schools require a Property Identification Code if they keep livestock e.g. horses, cattle, sheep, alpacas etc):			
PIRSA Aquaculture Licence number:		DEWNR native animal Keep and Sell permit number:	
If keeping native animals, please provide details of site's native animal consultant:			

Sites are required to ensure the Animal Ethics Focus Person or supervising teacher is contactable

Animal Ethics Focus Person:		Position held:	
Mobile (in case of emergency):		Email address:	
List any relevant background, qualifications and training:		Memberships of relevant animal groups:	
Supervising Teacher/Principal:		Position held:	
Mobile (in case of emergency):		Email address:	
List any relevant background, qualifications and training:		Memberships of relevant animal groups:	

Sites must nominate a Veterinarian

Veterinary Practice and Surgeon:		Telephone No:	
Veterinarian has been advised:	☐ Yes ☐ No	After hours contact details:	

The Veterinarian must be aware that they have been nominated by the school to ensure they are prepared to work with the species held by the school, they are familiar with the school facilities and aware of what will be done with the animals. The AEC may contact Veterinarians for confirmation.

Program Name:	

1. Educational Outcomes What is the justification for using animals and how will they be incorporated into the curriculum.

2. Replacement, Reduction and Refinement *(see Australian Code for the care and use of animals for scientific purposes 8th Edition 2013 Section 1, 1.18-1.32)* *Describe how you have applied Replacement, Reduction and Refinement (the 3Rs) at all stages of animal care and use.*
a) **Replacement alternatives:** Methods that replace or partially replace the use of animals must be investigated, considered and, where applicable, implemented e.g. DVD, Internet, Audio Visual etc. **Please describe how alternative methods for using animals have been investigated:**
b) **Reduction alternatives:** The number of animals used in a project must be the minimum necessary to achieve the proposed aims and to satisfy good statistical design. **Please describe how the reduction in the number of animals has been investigated:**
c) **Refinement alternatives:** Steps must be taken at all times to support and safeguard animal wellbeing. People who care for and use animals must be competent to perform the procedures or be under the direct supervision of a person who is competent and ensure that procedures are performed competently. **Please describe how potential pain and distress to animals will be alleviated or minimised and animal wellbeing is enhanced.**

Notes:

- **Any staff involved in the use and keeping of animals must be familiar with the "*Australian Code for the care and use of animals for scientific purposes 8th Edition 2013*".**
- **The school must provide age-appropriate instruction in the ethical and legal responsibilities underpinning the use of animals, as well as appropriate methods for animal care, to any students prior to the use of animals.**
- **It is expected that the staff identified within this application will be responsible for the welfare of the animals at all times.**
- **The department encourages the use of documented animal husbandry/farm management plans which detail vaccinating, drenching, pasture renovation, lambing, mating etc.**
- **The Animal Ethics Focus Person or teacher MUST submit an Adverse Events form to report any adverse incidents that occur.**

3. Applicant's certification:

I certify that this animal/these animals will be kept in accordance with the *South Australian Animal Welfare Act 1985* (*The Act*) and the *Australian Code for the care and use of animals for scientific purposes 8th Edition 2013* (*The Code*). I acknowledge that I have read *The Code* and that I have a responsibility for the ethical implementation of the proposal(s) according to the principles contained in *The Code*.

Animal Ethics Focus Person	**Name:**	
	Signature:	
	Date:	

4. Principal / Director's certification:

I am satisfied that the school staff have the technical competence required to carry out the project described with minimum distress to the animals. I acknowledge that I have read *The Code* and that I accept responsibility for the ethical implementation of the proposal(s) according to the principles contained in *The Code*. I believe this work meets the requirements of *The Act, The Code* and its regulations. I have read the application and I am satisfied that this work is of sufficient educational merit. Sufficient and adequate resources will be available to provide appropriate care for all animals.

Principal/Director	**Name:**	
	Signature:	
	Date:	

Applications for category 4 and 5 activities or non-listed activities must be submitted for approval to the Animal Ethics Committee (AEC) prior to undertaking any procedures.

Please keep a copy of this application form for your records and return a copy to the AEC via:

Post to
Executive Officer, Department for Education Animal Ethics Committee
Education Support Hub
Ground Floor, 8 Milner Street, HINDMARSH SA 5007
Or email to
Education.AnimalEthics@sa.gov.au

All Animal Ethics information and copies of The Code and The Act are available on the intranet: https://edi.sa.edu.au > Teaching and Learning > Specialist Programs > Animal ethics

For information or assistance please contact the Animal Ethics Committee Executive Officer:
Phone: 8463 5826
Email: Education.AnimalEthics@sa.gov.au

Office Use Only

Date application received:	**Date application presented to the Animal Ethics Committee: .....**

Date Approved:	**Approval Number: .....**

Date Approval Letter sent:	**.....**	**POST** ☐	**EMAIL** ☐

SPECIES INFORMATION – MUST BE COMPLETED FOR EACH SPECIES KEPT

Repeat this section and the activities undertaken for each species and breed of animal kept, including those housed together.

School Name:

Commencing date and conclusion date of animal use. Please note, applications must be submitted PRIOR to keeping animals.

Commencement Date (DD/MM/YYYY): | Conclusion Date (DD/MM/YYYY): | Or: ☐ Ongoing

1. SPECIES INFORMATION - Please be specific – Supporting photographs of the animals are mandatory*. Photos must be dated.

**Photographs of animals not required for new programs where animals have not yet been purchased.*

Species to be kept: | **Total number kept over 12 months:** | **Number of batches per year:**

Breed: | **Kept in batches:** ☐ Yes ☐ No | **Number of animals per batch:**

Source of animals: Detail where the animals will come from and how they will be transported.

Fate of animals: Describe the fate of the animals at the end of the project (e.g. kept indefinitely, re-homed or sold).

2. HOUSING/ENVIRONMENT – Supporting photographs of the facilities are mandatory. Photos must be dated.

Type of housing/environment: | **Size:**

(eg. aviary, hutch, aquariums, paddock) Define shelter type for larger animals (eg. trees, shelter shed). Include sizes of all areas as relevant (eg. 20m x 20m / 5Ha / indoor and outdoor areas). Attach maps/plans where necessary.

Location:

(eg. outside garden/paddocks/shed – on school site / off main school site)

Cleaning schedule:

(eg. weekly, end of term, daily removal of excreta. Include if and when paddocks are cleaned to reduce the accumulation of manure/waste.

3. FEEDING – Supporting photographs of the equipment are mandatory. Photos must be dated.

Feed Type:

(eg. seed, fruit, commercial preparations, flakes, hay, pellets, pasture – include supplementary food)

Feeder Type: (eg. hopper, open bowl, trough) | **Water vessel type:** (eg. sipper, bowl, trough)

3. SECURITY

Type:

e.g. mesh fence, locked gate, video surveillance, physical surveillance

4. CARE

	Please indicate frequency of checking the following: (eg. daily, twice daily)			**Names of staff responsible for checking the animals**	**Are animals on-site? **If off-site, see note below**
	Feed levels	**Water levels**	**Animals (Animals MUST be checked at least DAILY)**		
During weekdays					☐ Yes ☐ No
During weekends					☐ Yes ☐ No
During school holidays					☐ Yes ☐ No

Have the carers/staff identified been advised of their responsibilities and are competent to carry out this role? ☐ Yes ☐ No

Have they been provided with access to SOP's and emergency contact numbers, including the nominated Vet? ☐ Yes ☐ No

**** If off-site care is provided, please describe where the animals are kept:**

Students must not be allowed to take animals home unless there is a clear, written undertaking from a parent or guardian that the animals will be cared for adequately and responsibly. Full care details are to be provided to the carer, including an emergency contact phone number and the veterinarian's phone number.

5. STANDARD OPERATING PROCEDURES (SOP)

Please indicate which AEC SOPs provide the guidelines for this species/procedure (Quote number).

Should an approved AEC SOP not be available or any other SOP be used, specific care details/a copy must be attached to this application for AEC review.

Species, as shown on previous page	

Audio Visual materials should be used where possible to demonstrate and supplement the activities as identified below.

Students can undertake CATEGORY 2/3 ACTIVITIES under direct supervision of appropriately qualified teacher.
These should be listed for each species when performed in conjuction with CATEGORY 4/5 ACTIVITIES.

Category 2 Activities		
Approval by the Principal is required and should be undertaken in accordance with a Standard Operating Procedure endorsed by the AEC. *Please mark X in the boxes below*	*Teacher demonstrates procedure ONLY*	*Students participate/ assist in procedure*
Care for Animals on loan from the Nature Education Centre		
Observation of particular animal behaviours, e.g. oestrus, parturition		
School performance by outside agencies that have animals as part of their exhibits		
Breeding of mice or other appropriate animal in the classroom		
The appropriate care of classroom pets		
Familiarisation activities		
Administering water orally as a treatment		
Collection of wool, milk, faeces or urine samples (non-invasive)		
Administering a topical treatment to the udder		
Coat care and grooming		
Tail tagging		
Non-invasive measurement of body weight, body condition by visual assessment or condition scoring, growth, body proportions, pulse or blood flow, respiration, skin temperature (non-invasive), age by dentition, scrotum and testicles (palpation)		
Mustering, drafting (in crush or bailhead), capture, restraint and handling of non-free-living domesticated animals (grooming or holding an animal, collecting a milk sample, non-invasive measurements, leading or riding an appropriately trained animal)		
Organisations bringing animals to School (eg. Delta Society programs, RSPCA or PetPep)		

Category 3 Activities		
Approval by the Principal is required and should be undertaken in accordance with a Standard Operating Procedure endorsed by the AEC. *Please mark X in the boxes below*	*Teacher demonstrates procedure ONLY*	*Students participate/ assist in procedure*
Measurement of mild dietary effects		
Taming/gentling		
Training for competition or showing		
Tethering animals		
Collection of saliva		
Administering topical treatment by backline, spray or dip		
Administering drench or capsules orally		
Coat clipping		
Shearing of sheep or goats		
Crutching		
Dagging		
Milking		
Putting nose clips on cattle		
Loading and unloading animal onto transporters		
Showing animals at School or away		
Foot bathing		
Flystrike treatment		
Jetting animals		
Using sire harness		
Restraining with ropes		
Pregnancy detection by external ultrasound		
Applying heat detection devices, e.g. Kamars		

Species, as shown on previous page :

Category 4 Activities			
Students cannot perform the procedures below but can assist.			
Approval by the AEC is required for these activities to be undertaken. Many of these procedures have the potential to be painful or distressing to the animals. *Please mark X in the boxes below*	*Teacher / qualified person demonstrates procedure ONLY*	*Students assist with procedure*	*Students NOT present during procedure*
Breaking in cattle or horses			
Administering intraruminal, subcutaneous, intramuscular or intravenous injections			
Administering winged capsules orally			
Inserting intravenous injections e.g. CIDRs or intrauterine pessaries			
Ear marking / tagging of livestock			
Tattooing			
Shearing of Alpacas and Llamas - ***Must be undertaken by a professional or suitably experienced person***			
Castration of lambs using RING - ***Pain relief should be provided****			
Castration of lambs using KNIFE - ***Pain relief should be provided****			
Castration of calves using RING - ***Pain relief should be provided****			
Castration of calves using KNIFE - ***Pain relief should be provided****			
Tail docking of lambs - ***Pain relief should be provided****			
Tail docking of piglets by knife			
Tooth trimming / removal in piglets			
Beak trimming			
Oestrus synchronisation			
Microchip tagging			
Horn tipping			
Hoof paring: sheep and goats			
Euthanasia of aquaculture species			
Commercial sale activities (eg: growing chickens, turkeys, rabbits, pigs, cattle for sale, aquaculture enterprises, egg production, etc.)			

Details of all individuals performing CATEGORY 2/3/4/5 activities (Attach additional pages if required)		
Name	**Role/Position** (including external)	**Relevant background, qualifications and training and/or industry experience**

Please describe any other procedures that have not been identified: Provide specific details and attach additional information if necessary.

****Schools should contact their Veterinarian to discuss best practice analgesic options for these procedures**

Category 5 Activities		
Teachers/qualified persons can only demonstrates procedures below		
Approval by the AEC is required for these activities to be undertaken. Many of these procedures have the potential to be painful or distressing to the animals. *Please mark X in the boxes below*	*Teacher / qualified person demonstrates procedure ONLY*	*Students NOT present during procedure*
Collection of faeces, ruminal fluid or blood (invasive)		
Nose ringing		
Freeze branding/Hot branding of cattle or horses		
Artificial insemination		
Semen collection		
Hoof trimming: cattle		
Embryo collection and transfer		

PROHIBITED PROCEDURES

The following procedures must not be undertaken in Schools unless undertaken by a Veterinarian / qualified operator:

The AEC MUST be advised if any of these procedures are intended to be performed. A Veterinarian/qualified operator certificate must be provided to the AEC.

- Pregnancy detection by rectal palpation
- Performance of surgical procedures without anaesthesia, other than in the conduct of normal animal husbandry operations.
- The surgical opening of any body cavity (e.g. cattle spaying)
- Demonstration of correct & safe technique for mulesing sheep.
- Dehorning cattle under six months of age
- Detusking boars
- Debudding calves and kids

Please provide all requests as an attachment with relevant information and certificates.