

AEC STANDARD OPERATING PROCEDURES

SOP No:	05
SOP	Mice
Scientific Name:	<i>Mus musculus</i>
Category:	2 or 3
Approval Level:	Category 2: School Principal may delegate Category 3: School Principal may NOT delegate
Authority:	Government Schools – Department for Education and Childhood Development Animal Ethics Committee Independent and Catholic Schools – Non-Government Schools Animal Ethics Committee (NGSAEC)
Authority Approval Date:	1 August 2010
Last Update:	18 December 2018
Disclaimer:	<i>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</i>
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.

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Environment:

- **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.
- **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.

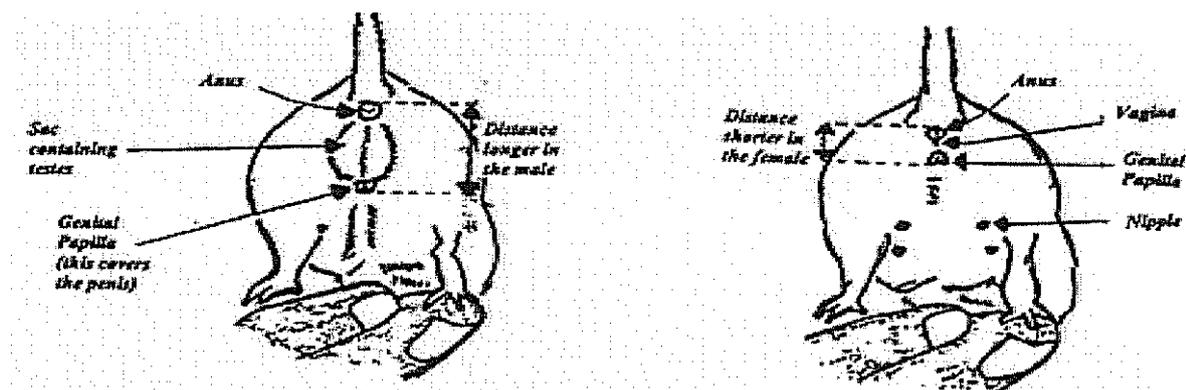
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Feeding:

- **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 18 days.
- **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 the female.



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 off the ground the other hand can be placed under the mouse's 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.

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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 euthanised 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.

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 daily 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:

www.rspca.org.au