www.medicalmouse.org.uk

Caring for laboratory animals

and finding new medicines for people and animals

Care · Commitment · Skill · Knowledge

Special animals

See www.medicalmouse.org.uk for more information about laboratory animals

Animals are very important in our lives:

Pigs, sheep, cows and chickens provide food.

Sheep dogs and police horses help people do their jobs.

Guide and hearing dogs help people with disabilities.

Pets keep us company. Many people enjoy going horse racing or visiting wildlife parks.

Q1 **Do you know anyone who works with animals?**

Laboratory animals including rats, mice, rabbits, dogs and monkeys help **scientists** and **doctors** first discover new human and animal medicines, and then test that the medicines are safe and effective.

This booklet was written by **animal technicians**, it is our job to care for lab animals.

Q2 **Do you think what animals do is important in your life?**

You will find suggested answers to the questions in this booklet at **www.medicalmouse.org.uk** or in the IAT Teacher's Guide.

Doctors and **vets** can choose from many good medicines to prescribe to their patients – and all of them have been developed with the help of lab animals.

Sadly, people and animals still die from illnesses like cancer, heart attacks and lung disease. Asthma, eczema and **inherited illnesses** such as muscular dystrophy, can make life very hard for patients. In developing countries many adults and children die from malaria and typhoid. Parasite infections can make people and animals very ill. So we still need new and better medicines to help sick people and animals.

Strict **laws** control how we use lab animals. UK law also says that new medicines must be tested on animals before they are given to sick people or sick animals.

Animal technicians are trained to look after lab animals properly. They ensure the animals are healthy and happy, and have the right food and **living conditions**. To be an **animal technician** you must have a special relationship with animals.

Q3 **Do you know anyone who is ill?**

Q4 **Do you ever take medicine?**

Q5 **Do you agree we need more medicines?**

Q6 **Do you ever give your pets medicines?**

Special work

See www.medicalmouse.org.uk for more information about medical research

Lab animals have to be looked after 24 hours a day, every day of the year (including weekends and at Christmas).

8 out of 10 of the animals we use in UK laboratories are rats and mice. We also use guinea pigs, rabbits, ferrets, fish, birds, reptiles, dogs, cats, sheep, cows, horses, toads and small monkeys called marmosets and macaques.

Q7 **Which animals do you think it might be hardest to look after?**

You have to be an **animal technician** to be allowed to look after lab animals. **Animal technicians** are trained and take exams to prove they know how to care for lab animals properly.

Lab animals eat special food and their condition and cages are regularly monitored. So to be an **animal technician** you have to like animals a lot.

Q8 **Who else apart from animal technicians has to work at Christmas?**

In the UK there is always a **vet** available to treat lab animals if they are ill. **Animal technicians** play with the animals and provide special animal toys to keep them happy (rats like to chew things, mice like dark tunnels).

Q9 **Do you play with your pets every day?**

In the UK, lab animals are used to discover, develop and test new medicines and treatments such as surgery and for **safety testing**. Using animals to test **cosmetics** is not done in the UK.

New medicines are given to animals in their food or water or by tablets into their mouths. Sometimes they have injections or inhale the medicine in a special cage (like a giant asthma inhaler). After testing in animals a new medicine is always tested in **human volunteers**.

Q10 **Would you volunteer to take a new medicine?**

The poo, wee and blood of lab animals are tested. Microscopes, scanners and computers are used to find out how animals are affected by disease and new medicines. **Animal technicians** help calm and soothe the animals and if anything might hurt the animal it is given pain relief. When the research is complete, most lab animals are humanely killed (with the same care as your vet will end the life of a sick or old pet). The animals are normally killed so their internal organs can be examined. This helps us understand fully how a living body reacts to illnesses and new medicines.

Q11 **Has one of your pets ever been put to sleep? What did your vet do to help it die peacefully?**

Most lab animals are used to help find new medical treatments. About 4% are used in safety testing on non-medical products such as the chemicals we use in our homes or on farms. This work is done to ensure these chemicals will not make us or our animals ill.

Q12 **Can you think of any chemicals used in your home or school and why they need to be safe?**

Special people

See www.medicalmouse.org.uk

for more information about the work of animal technicians

Universities are the biggest users of lab animals. Animal research is also carried out by **pharmaceutical companies** and the Government. Wherever lab animals are kept, it is **animal technicians** who look after them. We work with independent Government **inspectors** who check the animals are properly looked after and cared for.

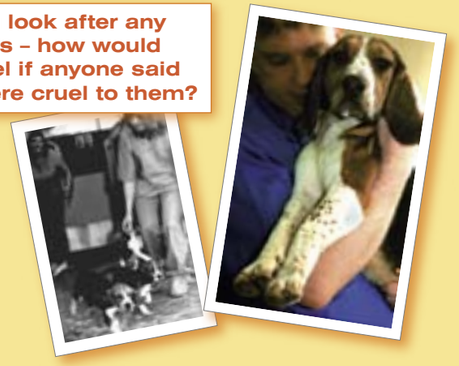
If you were a trainee **animal technician** you would learn how to clean the animals' cages and pens. You would then learn how to **handle** the animals properly – so they feel comfortable and secure. You would also learn how to tell if an animal is sick or unhappy. (Did you know that if a rat's tail gets waxy it might mean that the animal is bored?)

Q13 **How do you know if your pet is ill or bored?**

Animal technicians go to college to study animal **biology** and breeding. We learn how to look after many different types of animal. We have to pass exams to prove we are good enough at our job to work directly with the animals.

Some people say that we should not use animals in laboratories. These people claim the work is unnecessary and say we don't need new medicines (we disagree). Sometimes **extremists** try to frighten us by attacking our laboratories and homes and even say we are cruel to our animals. This is not true. Caring for animals is our job, we do it all day every day, and we are very good at it. We care very much about our animals. We are always trying to find ways of **replacing** animal tests and of using fewer animals in laboratories.

Q14 **Do you look after any animals – how would you feel if anyone said you were cruel to them?**



Glossary

See www.medicalmouse.org.uk

for more information on the laws controlling the use of lab animals

Animal Technicians: specially trained and qualified professionals who care for lab animals in all laboratories in the UK.

Animals toys: specially designed to help animals behave naturally (digging, chewing, foraging etc.).

Biology: the study of how animal and human bodies work.

Chemicals: used in cleaning products, electronic equipment, disinfectants etc.

Cosmetics: shampoo, make up or 'beauty' products (not tested on lab animals in the UK).

Doctors: general practitioners (GPs), surgeons and hospital specialists prescribe medicines which have always been tested in lab animals.

Exams: animal technicians must take and pass exams for at least 3 years to become fully qualified.

Extremists: people who try to stop animal testing using violence.

Handle: there are specific ways to pick up and carry animals that make them feel comfortable and safe.

Human volunteers: healthy people who take a new medicine to check it is safe to give to a sick patient.

Inherited illnesses: some illnesses are passed down within families.

Inspectors: the Home Office (a Government department) sends inspectors (usually doctors or vets) to visit animal laboratories. They have been trained to check that the animals are well looked after.

Laboratory or lab animals: a variety of animal species are used in the UK to find cures for diseases. Strict laws ensure they are properly cared for.

Laws: the Government licenses and monitors the amount and type of animal research allowed.

Living conditions: the cages or pens in which the animals are kept. They must provide warmth, comfort and exercise. SEE ANIMAL TOYS ABOVE.

Pharmaceutical companies: commercial companies which discover, manufacture and sell medicines.

Put to sleep: known as euthanasia this is usually done through inhalation of an anaesthetic or other medicine, or an injection.

Replacement: a key responsibility of **animal technicians** is to find ways of replacing or reducing the numbers of lab animals needed in research, and also to make the testing as gentle as possible (refinement).

Safety testing: testing to see if a new medicine or chemical is poisonous to humans or animals.

Scientists: people trained to study and investigate the behaviour of the living world and of the physical environment in which we exist, using scientific methods.

Vets: veterinary surgeons are animal doctors. A vet is always on call at an animal laboratory. All animal medicines have been tested in lab animals.

Please contact us, the IAT School Information Service by email at schoolinfo@medicalmouse.org.uk or visit our website, www.medicalmouse.org.uk

You can also get more information from:

RDS Understanding Animal Research in Medicine
Website: www.rds-online.org.uk

Coalition for Medical Progress
Website: www.medicalprogress.org

BRET (Biomedical Research Education Trust)
Website: www.bret.org.uk

AMRIC (Animals in Medicines Research Information Centre)
Website: www.abpi.org.uk/amric

SIMR (Seriously Ill for Medical Research)
Website: www.simr.org.uk

ABPI (Association of the British Pharmaceutical Industry)
Website: www.abpischools.org.uk

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Finding out more

This booklet was produced and distributed with the support of the Department of Trade and Industry and GlaxoSmithKline plc