Using Animals for Research and Teaching

Teacher Reference

When students/teachers are using animals for research and teaching, approval may need to be gained from an animal ethics committee.

In 2005 NZASE will have such a committee which will meet once a month.

Follow the sheets to see if you need to apply for this approval.

Links are available to view at the National Animal Ethics Advisory Committee web address at:

http://www.maf.govt.nz/biosecurity/animal-welfare/naeac/

A Student's Guide to Ethics
And Science & Technology Projects

Research in science and technology often involves animals or people: finding out about them, using them, or testing things on them. In New Zealand we share values that protect people and animals from unnecessary harm. Good science recognises that the things we do to learn and to improve technology have limits that protect people and animals. "Ethics" is about balancing the need for such protection with the need for learning and development.

Who Has to do an Ethics Check?

Actually, everyone must do an ethics check for every investigation. This applies to schools, universities, research laboratories, farms and factories and field workers – anyone investigating or testing anything in the broad area of science and technology. In most cases the check is a simple personal test to make sure what is being done is fair. However, if the investigation involves animals or people, a more formal check is required. So it is not just students doing a project who have to do an ethics check.

What is "Ethics Approval"?

For some investigations your teacher can approve your project if he/she is satisfied it is ethical. In that case "Ethics Approval" is what you get when your teacher says you can do the project. In other cases your project has to be checked by an Ethics Committee. If they approve your project they will issue "Ethics Approval" permitting you to do the project. Later on we will tell you how to find out if you need ethics approval, and if so, which type of approval you need.

But I'm just a School Pupil; I'm Not a Real Scientist!

Wrong. If you are a project you are a real scientist. It's what you do when you try to find something about the universe in which we live, or some way of solving a problem-and that's what you do in a science or technology project. But in any case, there are 3 very good reasons why school students have to do ethics checks-they are explained next.

Why do we Have to do an Ethics Check?

The law requires it. The Animal Welfare Act 1999 makes it very clear that investigations and experiments with certain animals as part of school studies must be checked for ethics. Even keeping a pet or other animal at school must meet the requirements of this Act. The Privacy Act 1993 also controls how you collect, use and report information about people. There are other laws too, such as those controlling the health and safety of people at work, people having medical treatment, and testing things on people.

You should want to make sure you are caring for animals and other people properly. Sometimes you may not be aware that something could be wrong with what you plan-no one expects you to be an expert! Even experienced researchers can make mistakes, which is why they get other people to check their plans too. The only way to be sure is to do an ethics check.

Learning to "do" science and technology includes learning to do things the right way. Ethics checks are a part of every science and technology investigations – so learn now and be better educated for the future.

What is Involved?

The first step is very simple: you just have to decide whether your project involves any sort of animals or any people (including yourself) in any way. If it does, then the next step is simple too: you have to check whether or not you will need a special Ethics Approval – actually, you don't have to know why the certificate is needed, just if! And if you do need a certificate, that too is simple (but not as simple as simple as the first two steps!): you have to explain what you want to do to an Ethics Committee who will tell you if you can do your project or not. That's it.

How do I Check the Ethics?

The best way is to fill in the Ethics Flow Chart that comes with this explanation. It's very easy: draw a line from "Start Here" through the options (answering easy questions for each step) until you come to the end-there it will tell you if you need an Ethics Certificate.

When Can I Start My project?
If everything else is ready, you can start your project straight away if you find you don't need ethics approval. But if you need ethics approval you must get that before you begin any investigation or testing. (You can get information from books and such places as the internet. And you can plan how you will do your investigation, but you must not begin any observations or tests, or gather information from people or from observing people or animals, until you have approval.)

What Happens if I Do a Project Without Ethics Approval?
If you need ethics approval and you begin or do a project without it,

- You will not be allowed to enter or display your project at the local science fair
- You may have broken the law and you and your school could be in trouble

But What if I Just Made a Mistake?
Don't panic! If you have done your checks properly, or even if you have gone too far without ethics approval, stop and get help. If you have made a mistake we will all help you.

What Happens if My Project is Selected for a Science Fair?
If your project is selected for the Fair you and your teacher will have to complete parts of the entry form that certify you have done ethics checks properly and have any approval needed. If you have not done this you will not be able to enter your project even though it was chosen by your school. If your ethics checks and approval are correct, your project is now headed for the fair! Congratulations.

Oh! And Check Safety Too
This is about ethics – there can also be safety issues that need to be checked. Make sure you talk to your teacher about safety for any experiments or investigations you plan to do. Also check about safety before you make up your project display – there are some things you cannot have on display even if they have been part of your investigation.

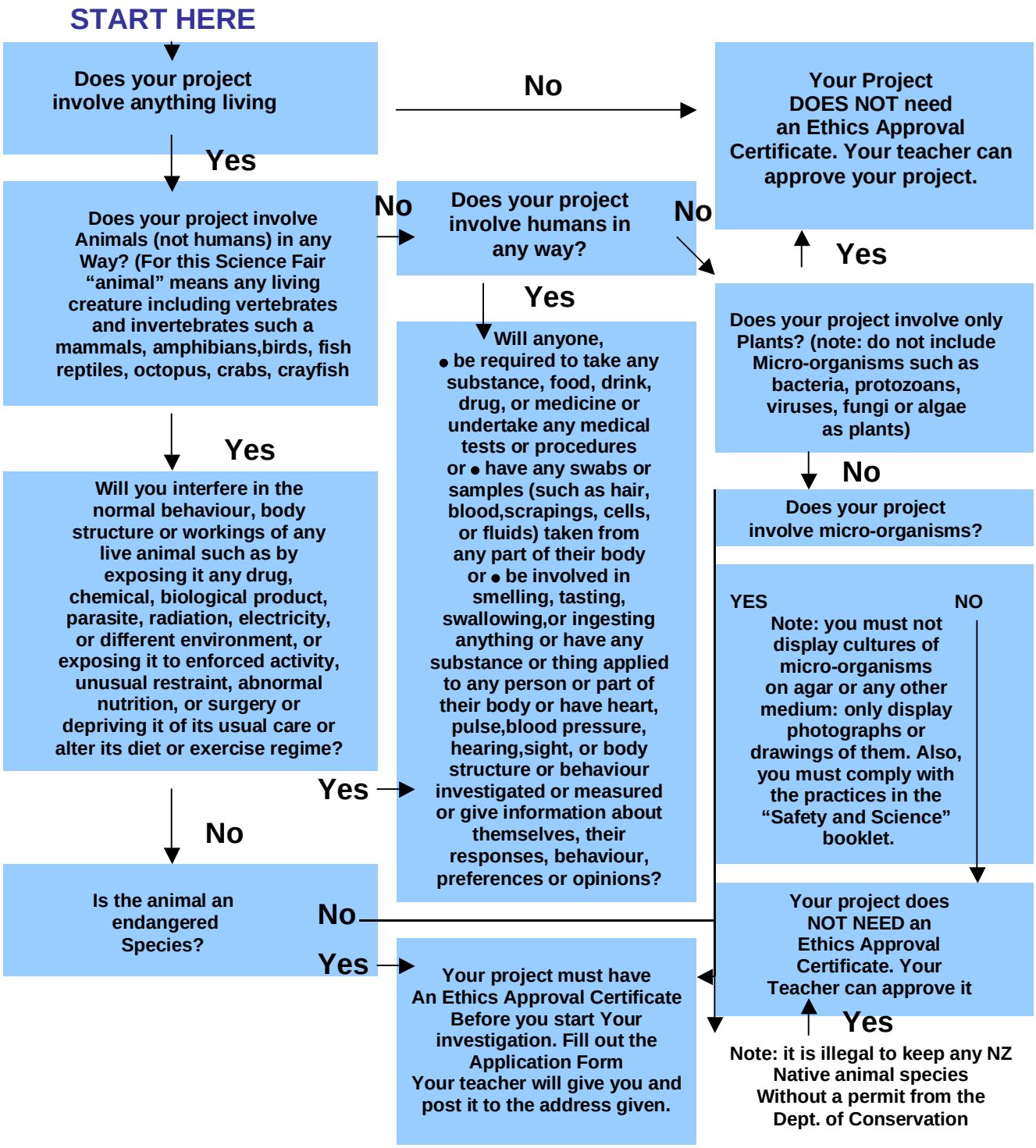
The NIWA Auckland City Science & Technology Fair

Ethics Flow Chart
Do I need an Ethics Approval Certificate for my project?

Student's Name:_____ Date:_____

Project Title:_____

Follow the chart below and mark your pathway in red pen.



Ethics Committee Approval

In order to make sure projects conform to all laws and regulations related to the use of animals and humans we are asking the following:

- All projects involving animals (vertebrates) and/or humans who are contributing to the data must complete an **Ethics Flow Chart.**
- If approval is required then it must be gained **before commencement** of the project involving animals and humans.
- It is important that a full explanation of the proposed method is attached to this form.

Notes:

- A copy of the relevant laws on the use of animals can be bound in this book
- A sample of a form used when humans are involved in a project is provided. This shows the type of information that is necessary to provide participating individuals
- No human survey participant must be named – use code numbers only
- All human participants should be made aware of the Disclaimer found at the bottom of this page
- Experiments should not be carried out on yourself, this is not good science

Please send completed ethics forms to:

Ethics Committee
C/- C Howard
24 Peretao Rise
Manurewa.

These must arrive before starting the project. Ethics forms may be sent by individual participants or collections of forms may be sent by school Science Technology Fair Co-ordinators. To speed up the return of these forms **a self-addresses and stamped envelope must be included with your submission.** If your application does not contain a sae it will be returned to the teacher in charge of your School fair at the next committee meeting.

Application for Ethical Review of a School Project Involving Animals

NAME:_____

SCHOOL:_____

NAME OF PARENT/GUARDIAN SUPERVISOR_____

ADDRESS:_____

PHONE:_____EMAIL:_____

NAME OF TEACHER SUPERVISOR:_____

SIGNATURE:_____

DATES AND CHECKS / / DATE OF APPROVAL / /

APPLICATION FOR ETHICAL REVIEW

1. INVESTIGATION'S TITLE_____
2. INVESTIGATION'S AIMS: WHAT DO I EXPECT TO FIND OUT FROM DOING IT?

   _____

   _____

3. SCIENTIFIC BACKGROUND: WHAT I KNOW ABOUT THIS BEFORE I START

   _____

   _____

3. TYPE AND NUMBER OF ANIMALS I WILL USE: SPECIES OF ANIMAL NUMBER OF EACH SPECIES

_____

5. SOURCE; WHERE WILL I GET THESE ANIMALS FROM?

_____

NAME(S):	SCHOOL:
PROJECT TITLE:	*PLEASE FILL OUT FOR THE ETHICS COMMITTEE*

EXAMPLE ONLY

AGREEMENT TO PARTICIPATE IN FUDGE TASTE PANEL

NAME……

AGE……UNDER 16 YEARS OVER 16 YEARS

I UNDERSTAND THAT I CAN WITHDRAW AT ANY TIME IN THIS STUDY YES / NO

I KNOW THAT ALL RECORDS WILL BE NON-IDENTIFYING AND THAT ALL RAW DATA WILL BE DESTROYED AT THE COMPLETION OF THIS STUDY YES / NO

I WANT TO KNOW THE FINAL RESULTS OF THIS STUDY
YES / NO

SIGNATURE OF TASTE PANELIST……..

NAME OF PARENT/CAREGIVER IF PANELIST UNDER 16
…….

SIGNATURE OF PARENT/CAREGIVER IF PANELIST IS UNDER 16
…….

MANY THANKS FOR YOUR INVOLVEMENT

FUDGE TASTE PANEL PARTICIPATION

MY INVESTIGATION

For my Science and Technology Fair entry, I am investigating the changes taste and texture to fudge, as I change the beating time of the mixture.

TASTE PANEL

I would like you to be a member of taste panel and to answer some questions about the fudge, which I have made. You will be given some samples of fudge to taste and to record and differences you perceive in texture, taste or other aspects of the fudge. You may choose to swallow or to spit out the fudge once you have tasted it.

You will record your views on a sheet provided. The benefit of participating in this study is that you get to eat lovely fudge. The risks include that you may not like the flavour or that you may have an allergic reaction to the fudge or to one of the ingredients in it. Do look carefully at the ingredients list and if you are allergic to any one or more of the ingredients then please do not participate as a member of the taste panel.

If you are over 16 years of age then I need you to sign the participation form below that you will agree to participate. If you are below 16 then 1 need your permission and that of your parent or caregiver – you must each sign the sheet.

Fudge recipe

The ingredients in the recipe of the fudge are:

50G butter	1 tbsp golden syrup	2 tbsp cocoa
1 cup sugar	½ cup raisins	¼ cup chopped walnuts

Different batches have been beaten for differing amounts of time. You will not be told of the beating times, but batches will be identified by Different letters e.g. A,B,C

PARTICIPATION

If at any time you wish to withdraw from the taste panel you may do so. Should you feel unwell then please inform me so I can get help for you. I have a cell phone with me and can contact emergency services should you suffer an allergic response to the fudge.

Once my investigation is completed, I will destroy all my raw data and at no stage will taste panellists be identified by name, Identification will be only by code. Any queries about my study can be discussed with my supervisor who is……
Phone……

THE LAW

2.1 The Animal Welfare Act 1999

The Animal Welfare Act 1999 governs the welfare of animals in New Zealand. It applies specifically to vertebrate animals (including fish), octopuses, squids, crabs, lobsters and crayfish, but the general principles should also be applied to other species of animals kept in classrooms. It also includes any mammalian foetus or any avian or reptilian pre-hatched young in the last half of its period of gestation or development. It excludes human beings.

The Act requires “owners of animals, and persons in charge of animals, to attend properly to the welfare of those animals”.
This can be done by ensuring that an animal’s physical, health and behavioural needs are met by:

- Providing it with proper and sufficient food and water;
- Providing it with adequate shelter;
- Providing it with the opportunity to display normal patterns of behaviour;
- Handling it physically in a manner that minimises the likelihood of unreasonable or unnecessary pain or distress
- Protecting it from and rapidly diagnosing any significant injury or disease

A specific part of the Act covers the use of live animals in research, testing, and teaching. These provisions make it an offence to manipulate live animals for teaching purposes unless this is done in

accordance with a code of ethical conduct approved by the Director-General of the Ministry of Agriculture and Forestry.

In most cases, activities involving animals in a school do not need ethical approval. (See Section 2.4 on page 10 for examples of these activities.)

Ethical approval is legally required only if live animals are to be manipulated for teaching (and other specified) purposes. The terms 'animal' and 'manipulation' are defined in the Animal Welfare Act 1999 as follows.

"Animal"

(a) Means any live member of the animal kingdom that is:

- (i) A mammal; or
- (II) A bird; or
- (III) A reptile; or
- (IV) An amphibian; or
- (V) A fish (bony or cartilaginous); or
- (VI) Any octopus, squid, crab, lobster, or crayfish (including freshwater crayfish); or
- (VII) Any other member of the animal kingdom which is declared from time to time by the Governor-General, by Order in Council, to be an animal for the purposes of this Act:

(b) Includes any mammalian foetus, or any avian or reptilian pre-hatched young, that is in the last half of its period of gestation or development; and

(c) Includes any marsupial pouch young; but

(d) Does not include-

- (i) A human being; or
- (ii) Except as provided in paragraph (b) or paragraph (c) of this definition, any animal in the prenatal, prehatched, larval, or other such developmental stage.

"Manipulation" in relation to an animal, means…interfering with the normal physiological, behavioural or anatomical integrity of the animal by deliberately:

(a) Subjecting it to a procedure which is unusual or abnormal when compared with that to which animals of that type would be subjected under normal management or practice and which involves

(i) Exposing the animal to any parasite, micro-organism, drug, chemical, biological product, radiation, electrica stimulation, or environmental condition; or

(ii) Enforced activity, restraint, nutrition, or surgical intervention; or

(b) Depriving it of usual care;…

2.2 The Wildlife Act 1953

Any creature that is in a wild state and is defined as an animal in the Wildlife Act 1953 is absolutely protected unless otherwise stated in the Act. The definition of “animal” in the Act is quite different from that in the Animals Welfare Act 1999, and it includes some marine species and a number of terrestrial and freshwater invertebrates.