

Animal welfare and the use of animals in science

Throughout biology, learners study a variety of living things, including animals. As part of the University of Cambridge, Cambridge International shares the approach that good animal welfare and good science go hand-in-hand.

Learners should have opportunities to observe animals in their natural environment. This should be done responsibly and not in a way that could cause distress or harm to the animals or damage to the environment.

If living animals are brought into schools then the teacher must ensure that any national, regional and school regulations are followed regarding animal welfare. In all circumstances, the teacher responsible must ensure all animals have:

- a suitable environment, including being housed with, or apart from, other animals (as required for the species)
- a suitable diet
- the opportunity to exhibit normal behaviour patterns
- protection from pain, injury, suffering and disease.

There is no requirement for learners to participate in, or observe, animal dissections for Cambridge Primary. Although dissection can provide a valuable learning opportunity, some learners decide not to continue studying biology because they dislike animal dissection. Several alternatives are available to dissection (such as models and diagrams) which teachers should consider during their planning.

If a teacher decides to include animal dissection then animal material should be obtained from premises licensed to sell them for human or pet consumption, or from a reputable biological supplier. This approach helps to ensure animal welfare standards and also decreases the risk from pathogens being present in the material. No teacher or learner should kill animals for dissection.

When used, fresh material should be kept at 5 °C or below until just before use. Frozen material should be defrosted slowly (at 5 °C) without direct heat. All fresh or defrosted material should be used within 2 days. Preserved animal materials should only be handled when wearing gloves and in a well-ventilated room.

The responsibility for ensuring the welfare of all animals studied in science remains with the school.

Stage 1

Scientific enquiry

Ideas and evidence

- **1Ep1** Try to answer questions by collecting evidence through observation

Plan investigative work

- **1Ep2** Ask questions and contribute to discussions about how to seek answers
- **1Ep3** Make predictions
- **1Ep4** Decide what to do to try to answer a science question

Obtain and present evidence

- **1Eo1** Explore and observe in order to collect evidence (measurements and observations) to answer questions
- **1Eo2** Suggest ideas and follow instructions
- **1Eo3** Record stages in work

Consider evidence and approach

- **1Eo4** Make comparisons
- **1Eo5** Compare what happened with predictions
- **1Eo6** Model and communicate ideas in order to share, explain and develop them

Biology

Plants

- **1Bp1** Know that plants are living things
- **1Bp2** Know that there are living things and things that have never been alive
- **1Bp3** Explore ways that different animals and plants inhabit local environments
- **1Bp4** Name the major parts of a plant, looking at real plants and models
- **1Bp5** Know that plants need light and water to grow
- **1Bp6** Explore how seeds grow into flowering plants

Humans and animals

- **1Bh1** Recognise the similarities and differences between each other
- **1Bh2** Recognise and name the main external parts of the body
- **1Bh3** Know about the need for a healthy diet, including the right types of food and water
- **1Bh4** Explore how senses enable humans and animals to be aware of the world around them
- **1Bh5** Know that humans and animals produce offspring which grow into adults

Chemistry

Material properties

- **1Cp1** Use senses to explore and talk about different materials
- **1Cp2** Identify the characteristics of different materials
- **1Cp3** Recognise and name common materials
- **1Cp4** Sort objects into groups based on the properties of their materials

Physics

Forces

- **1Pf1** Explore, talk about and describe the movement of familiar things
- **1Pf2** Recognise that both pushes and pulls are forces
- **1Pf3** Recognise that when things speed up, slow down or change direction there is a cause

Sound

- **1Ps1** Identify many sources of sound
- **1Ps2** Know that we hear when sound enters our ear
- **1Ps3** Recognise that as sound travels from a source it becomes fainter