

Animal Science, Husbandry & Welfare

The fields of animal science, husbandry and welfare are interrelated. The knowledge that people gain through a study of animal science is often applied to animal husbandry. Animal science can also influence how animal welfare is judged and monitored.

So what is animal science? And how does it influence society's views of animals, their uses and their welfare?

- **Animal science** is usually described as the study of the biology of domestic animals, including livestock and horses.
- Animal science also includes the study of companion animals, including dogs and cats.
- Animal science can involve studying and learning about animal production, nutrition, behaviour, breeding and technology.

Animal welfare relates to how safe, healthy and comfortable an animal is in its daily life. It refers to the state and well being of the animal.

The term "animal husbandry" essentially means "looking after" or providing care for animals. People become specialists in animal husbandry when they are involved in occupations such as farming, ranching, sheep herding or animal breeding. Anyone who takes care of domestic animals, especially in large groups, is practising animal husbandry.

Like people, animals suffer when they are uncomfortable. They need space and contact with other animals in order to play and behave naturally. If they are injured or ill, animals feel pain, and so they should be examined and treated by a veterinarian. If an animal is healthy, comfortable, safe, well nourished, and able to move and behave in a natural way and not suffering from pain, fear, stress or distress, it is considered to be in a state of good welfare. Animal science helps us identify the indicators and evidence of good welfare.

Animal science tells us that good animal welfare requires:

- Disease prevention and veterinary treatment
- Appropriate shelter
- Attention to nutrition
- Humane handling.

The treatment and care that an animal receives is referred to as animal care or animal husbandry.

Animal husbandry is the science of taking care of domestic animals that are used primarily as food or product sources.

People involved in animal husbandry look to animal welfare guidelines as well as animal science for help in providing the best possible care for their animals. The most widely accepted definition of animal welfare is perhaps the *Five Freedoms*, developed in the United Kingdom to provide guidelines for basic and acceptable levels of care.

THE FIVE FREEDOMS

Freedom from hunger and thirst by ready access to fresh water and a diet to maintain full health and vigour

Freedom from discomfort by providing an appropriate environment including shelter and a comfortable resting area

Freedom from pain, injury and disease by prevention or rapid diagnosis and treatment

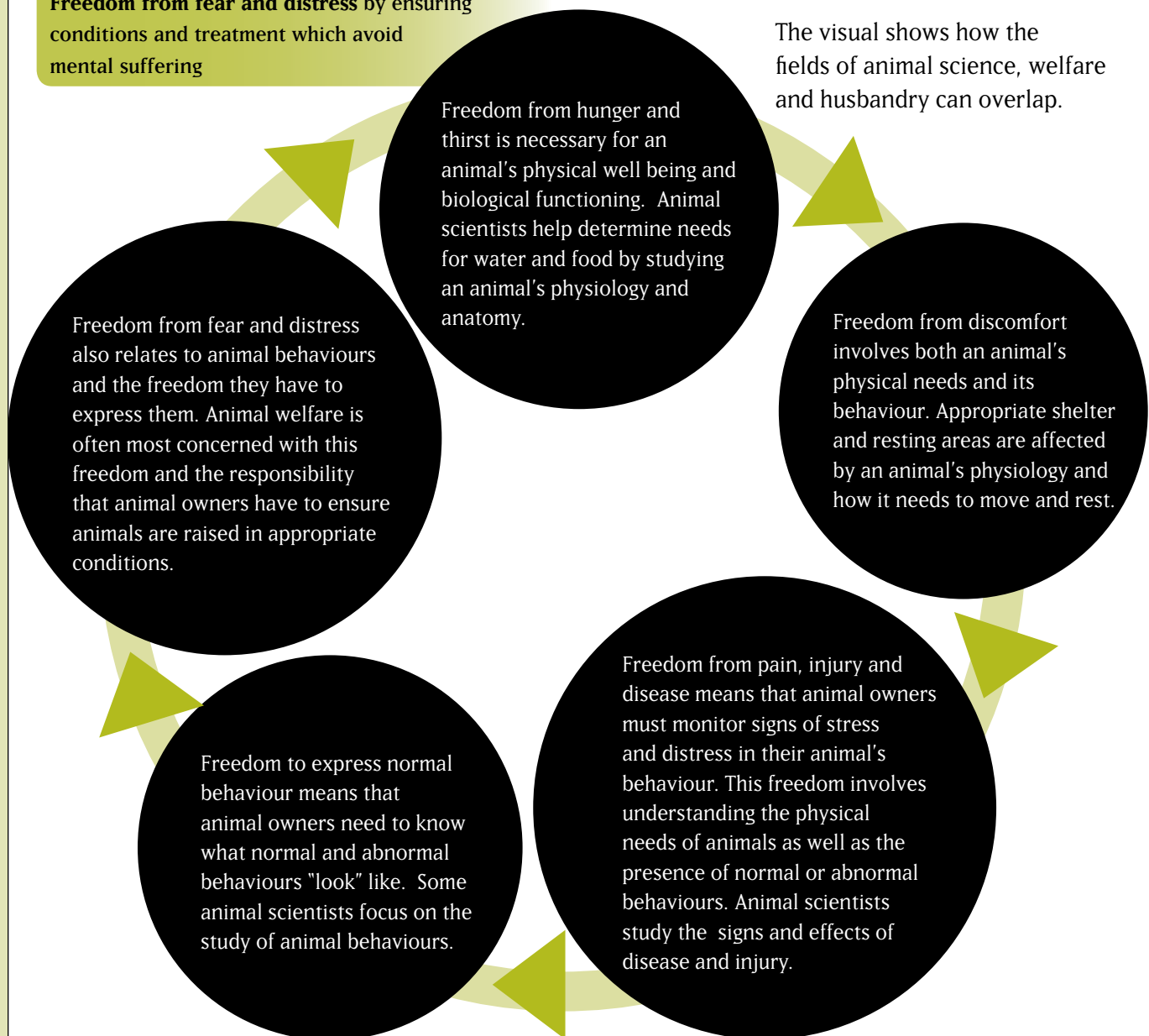
Freedom to express normal behaviour by providing sufficient space, proper facilities and company of the animal's own kind

Freedom from fear and distress by ensuring conditions and treatment which avoid mental suffering

Animal scientists can differ, however, in their views and opinions about how animal welfare should be measured and monitored. Some animal scientists study and judge an animal's welfare through one or more of three main indicators:

- The biological well being or functioning of the animal
- Evidence of what the animal is experiencing, including whether it is experiencing stress, pain or suffering
- The presence of "normal" behaviours as compared to behaviours that are considered to be "abnormal"

The visual shows how the fields of animal science, welfare and husbandry can overlap.



How do the Five Freedoms relate to the three indicators of animal welfare described on the previous page? Use the Triple T-Chart below to respond to this question. Write each of the Five Freedoms in any of the three columns to which you think it applies. A blank Triple T-Chart template is also provided on the *Virtual Apprentice 2020* website.

Biological Functioning	What the Animal Experiences	Presence of "Normal" Behaviours