

Overview

This standard covers the knowledge, understanding and skills required to set up, establish and maintain an aquarium. This might be within a retail setting, a zoo or other wildlife facility, a research facility, for educational purposes or in other settings.

You will need to be aware of your own limitations and ensure that you meet the relevant legal responsibilities for duty of care under animal health and welfare legislation.

This standard is for those with responsibility for setting up and maintaining an aquarium.

In some situations licences may be required for setting up an aquarium.

Performance criteria

- You must be able to:* You must be able to:
- P1 maintain your own professional conduct and ethics and work within the limits of your own authority, expertise, training, competence and experience
 - P2 comply with relevant animal health and welfare, and other animal-related legislation and associated codes of practice at all times
 - P3 carry out all work in accordance with relevant environmental and health and safety legislation, risk assessment requirements, codes of practice and company policies
 - P4 select and implement appropriate hygiene and bio-security measures and ensure they are maintained
 - P5 select, prepare, use and maintain equipment in a safe, clean and effective condition throughout
 - P6 use appropriate personal protective equipment (PPE)
 - P7 set up the aquarium in accordance with the intended purpose
 - P8 introduce specimens into the aquarium in the appropriate manner
 - P9 monitor and maintain the aquarium and the species within it
 - P10 recognise and deal with disease and other problems where appropriate
 - P11 set up and maintain appropriate records as required by relevant legislation and the organisation

Knowledge and understanding

You need to know and understand: You need to know and understand:

K1 your professional responsibilities and the need to maintain professional competence

K2 how to assess practices in a scientifically robust manner to determine their suitability, efficacy and welfare implications

K3 your responsibilities under relevant animal health and welfare, and other animal-related legislation and codes of practice

K4 your responsibilities under relevant environmental and health and safety legislation, codes of practice and company policies

K5 the importance of maintaining appropriate levels of hygiene and biosecurity and how these can be achieved K6 the equipment required and how to prepare, use and maintain it in a safe and effective condition

K7 the need for PPE when dealing with chemicals associated with aquarium set up and maintenance and with potential infection and injury by specimens

K8 when and how to use different types of aquarium equipment to set up a range of biotopes

K9 the process of setting up and factors to consider when setting up an aquarium

K10 the factors to consider when introducing specimens into an aquarium

K11 how to identify the main groups of species that are able to cohabit an aquarium and how to identify species combinations that may be incompatible due to trophic interaction, territorial aggression or differing environmental requirements

K12 how and when to introduce specimens into the aquarium

K13 biotic and abiotic requirements of a range of specimens and how to provide the conditions required for them to thrive

K14 how to maintain an aquarium for three months or more

K15 symptoms and consequences of common diseases in the aquarium and the most appropriate and effective way to deal with problems

K16 the legal requirements for the disposal of waste, including water from aquariums

K17 what appropriate records need to be kept and their significance

Set up and maintain an aquarium

Scope/range

Factors to consider when setting up a aquarium:

- 1 equipment
- 2 tank (size, shape, material)
- 3 lighting
- 4 temperature control (cooling and heating)
- 5 substrates
- 6 the nitrogen cycle
- 7 system type (closed, semi-recirculation and open systems)
- 8 filtration
- 9 water conditions (marine and freshwater)
- 10 time required for set up to mature
- 11 specialist set ups

Factors to consider when introducing specimens into an aquarium:

- 12 size
- 13 stocking density
- 14 compatibility of species
- 15 quarantine
- 16 sourcing specimens (ethically, legally and sustainably)
- 17 plants/algae
- 18 vertebrates and invertebrates
- 19 behavioural needs of the species and individual specimens
- 20 timescale for introduction of specimens

Monitor and maintain an aquarium:

- 21 testing water conditions
- 22 maintaining abiotic water conditions
- 23 cleaning tank, filters and other equipment

Monitor and maintain species:

- 24 observing specimen behaviours and condition
- 25 nutrition (including live food culture)
- 26 feeding regimes
- 27 recognising and dealing with diseases and other problems, including noticing the symptoms of diseases and common problems
- 28 treatment of diseases and other problems
- 29 quarantine and euthanasia

Glossary

Regulations and legislation – the implications and requirements of the Animal Welfare Act, Zoos licence, Scientific Act, Wildlife and Countryside Act and any others that apply in specific circumstances.

Current animal welfare legislation:

- England and Wales, Animal Welfare Act 2006
- Scotland, Animal Health and Welfare Act 2006
- Northern Ireland, Welfare of Animals Act (Northern Ireland) 2011

Set up and maintain an aquarium

Developed by	Lantra
Version Number	1
Date Approved	December 2014
Indicative Review Date	December 2019
Validity	Current
Status	Original
Originating Organisation	Lantra
Original URN	LANAnC74
Relevant Occupations	Animal Care
Suite	Animal Care and Welfare
Keywords	fish; aquarium; maintain
