



## Higher National Unit specification

### General information

**Unit title:** Specialist Animal Care: Ornamental Fish (SCQF level 7)

**Unit code:** HC45 34

**Superclass:** SP

**Publication date:** March 2016

**Source:** Scottish Qualifications Authority

**Version:** 01

### Unit purpose

This Unit provides knowledge and understanding of the care of the common species of ornamental fish kept in the UK. It also allows learners to develop an understanding of current legislation in this area and provides the underpinning knowledge needed to work in the aquatics industry.

### Outcomes

On successful completion of the Unit the learner will be able to:

- 1 Explain the internal and external features of ornamental fish.
- 2 Explain and apply the care requirements of ornamental fish.
- 3 Describe the influence of current legislation on the keeping of ornamental fish in the UK.

### Credit points and level

1 Higher National Unit credit at SCQF level 7: (8 SCQF credit points at SCQF level 7)

### Recommended entry to the Unit

Access to this Unit will be at the discretion of the centre. However, it would be beneficial for learners to have a practical knowledge of fish care, and to have completed *Small Animal Husbandry: Ornamental Fish Care* (D7EE 11) prior to undertaking this Unit.

## **Higher National Unit Specification: General information (cont)**

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### **Core Skills**

Opportunities to develop aspects of Core Skills are highlighted in the Support Notes for this Unit specification.

There is no automatic certification of Core Skills or Core Skill components in this Unit.

### **Context for delivery**

If this Unit is delivered as part of a Group Award, it is recommended that it should be taught and assessed within the subject area of the Group Award to which it contributes.

### **Equality and inclusion**

This Unit specification has been designed to ensure that there are no unnecessary barriers to learning or assessment. The individual needs of learners should be taken into account when planning learning experiences, selecting assessment methods or considering alternative evidence.

Further advice can be found on our website [www.sqa.org.uk/assessmentarrangements](http://www.sqa.org.uk/assessmentarrangements).

## Higher National Unit specification: Statement of standards

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Acceptable performance in this Unit will be the satisfactory achievement of the standards set out in this part of the Unit specification. All sections of the statement of standards are mandatory and cannot be altered without reference to SQA.

Where evidence for Outcomes is assessed on a sample basis, the whole of the content listed in the Knowledge and/or Skills section must be taught and available for assessment. Learners should not know in advance the items on which they will be assessed and different items should be sampled on each assessment occasion.

### Outcome 1

Explain the internal and external features of ornamental fish.

#### Knowledge and/or Skills

- ◆ Ornamental Fish species
- ◆ External anatomical features
- ◆ Internal anatomical features
- ◆ Anatomical functions

### Outcome 2

Explain and apply the care requirements of ornamental fish.

#### Knowledge and/or Skills

- ◆ Water quality
- ◆ Feeding requirements
- ◆ Advantages and Disadvantages of Feeds
- ◆ Common diseases and health problems
- ◆ Aquarium and ornamental pond requirements
- ◆ Routine maintenance
- ◆ Health and Safety
- ◆ Zoonoses

### Outcome 3

Describe the influence of current legislation on the keeping of ornamental fish in the UK.

#### Knowledge and/or Skills

- ◆ UK Aquatics Industry
- ◆ Current legislation

## Higher National Unit specification: Statement of standards (cont)

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### Evidence Requirements for this Unit

Learners will need to provide evidence to demonstrate their Knowledge and/or Skills across all Outcomes by showing that they can:

#### For Outcome 1

- ◆ identify the main ornamental fish species commonly kept in the UK. The identification must include: seven species from ten tropical fresh water groups, four species from five cold water groups and four species from five tropical marine groups.
- ◆ explain the function of at least five external anatomical features using at least two ornamental fish species. The explanation must include the tail fin, dorsal fin, scales, operculum and lateral line.
- ◆ explain the function of at least six internal anatomical features of at least two ornamental fish species. The explanation must include at least six from the following: gills, heart, liver, kidney, stomach, intestine, swim bladder, spinal chord and should also include reference to how the functions of the features interrelate with each other.

Assessment must be conducted under closed-book, supervised conditions.

#### For Outcome 2

- ◆ explain the requirements for the set-up of an aquarium or ornamental pond for the three ornamental fish groups identified in Outcome 1. This must include filtration requirements, heating, lighting, fish population, plant and substrate requirements.
- ◆ set up an aquarium or ornamental pond correctly for at least one of three ornamental fish groups identified in Outcome 1.
- ◆ explain how water quality is monitored in an aquarium or pond for the three ornamental fish groups identified in Outcome 1. The explanation must cover as a minimum, water temperature, nitrogen, ph and saline levels.
- ◆ explain the feeding requirements and the advantages and disadvantages of different feeds for the three ornamental fish groups identified in Outcome 1.
- ◆ describe the causes and clinical signs of at least one disease condition or health problem for each of the three ornamental fish groups identified in Outcome 1. The disease conditions must include common ectoparasites, common endoparasites, common fungi, common bacterial diseases and viral diseases. Health conditions must include those associated with water quality, nutrition and handling.
- ◆ explain two methods of disease control for three ornamental fish groups identified in Outcome 1. The explanation must include two from the following: chemical control, water quality management, isolation, quarantine and nutrition.
- ◆ maintain an aquarium and ornamental pond for at least one of the three ornamental fish groups identified in Outcome 1. This must include feeding requirements, water monitoring and any corrective actions taken to maintain optimum conditions over a period of at least three weeks. Health and safety procedures and the management of zoonoses must be included.

With the exception of the practical Evidence Requirements, this Outcome must be assessed under closed-book, supervised conditions.

## **Higher National Unit specification: Statement of standards (cont)**

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### **For Outcome 3**

- ◆ identify a minimum of two pieces of legislation that affect the keeping of ornamental fish in the UK.
- ◆ describe the impact of the legislation identified above.



## Higher National Unit Support Notes

**Unit title:** Specialist Animal Care: Ornamental Fish (SCQF level 7)

Unit Support Notes are offered as guidance and are not mandatory.

While the exact time allocated to this Unit is at the discretion of the centre, the notional design length is 40 hours.

### Guidance on the content and context for this Unit

This Unit is intended for learners who are working in or seeking a career in the animal care industry, or for anyone with an interest in the specialist care of ornamental fish. The teaching and learning should be delivered in this context. Health and safety procedures should always be followed, for example, when considering handling and zoonoses.

Additional information relating to each Outcome is given below:

#### Outcome 1

This Outcome covers the identification of the external and internal features of a fish, and a description of the function of structures and organs. This Outcome covers identification which will allow the learner to become familiar with selected species of fish from the different groups: tropical fresh water, cold fresh water, tropical marine. The tutor should select a representative sample of some of the commoner or more important species from each group.

#### Outcome 2

This Outcome covers general husbandry, nutrition, pond and aquarium maintenance and the health of a range of species of ornamental fish. A sample of fish from each group could be chosen. The tutor could choose a selection of species from each group to ensure that learners understand the different husbandry requirements of each group.

Learners should develop a good knowledge of the different types of feed for the different fish groups and the methods of giving feed in this Outcome. As far as possible they should have the opportunity to develop the practical experience of feeding different species of fish. The advantages and disadvantages of some types of diet should be discussed.

An awareness of aquarium/pond design, and environmental conditions such as water quality should also be included. Health and disease should include the diseases and conditions of major importance.

Common ectoparasites could include white spot, gill fluke, fish louse, Chilodonella, Trichodina, Ichthyobodo, Oodinium.

## Higher National Unit Support Notes (cont)

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Common endoparasites could include nematodes, Hexamita, Plistophora.

Common fungi could include Saprolegnia, Branchiomyces, Ichthyophonus. Bacterial diseases to include Myxobacteria, Mycobacteria, Aeromonas, Pseudomonas.

Viral diseases could include Lymphocystis, KHV, SVC.

Non infectious disease to include water quality, nutrition and handling.

Tutors should include any other appropriate conditions.

### Outcome 3

This Outcome covers important aspects of current legislation relevant to the keeping of the species mentioned. Legislation should be up to date and incorporate any new changes that are introduced at a later date.

The following legislation could be covered:

- ◆ Convention on International Trade in Endangered Species (CITES)
- ◆ Wildlife and Countryside Act 1981
- ◆ The Animal Health Act 1981
- ◆ The Abandonment of Animals Act 1996
- ◆ The Pet Animals Act 1951
- ◆ Importation of Animals Order 1977

### Guidance on approaches to delivery of this Unit

This Unit is likely to be part of a Group Award designed to provide learners with the ability to work in the animal care industry. It could also be delivered as a standalone Unit for those wishing to improve their knowledge and understanding of ornamental fish.

There is a practical component to this Unit. Learners will have to look after fish to ensure that they have the practical skills to complement the theoretical knowledge gained.

Photographs, videos, slides, visits to specialist facilities and presentations by visiting speakers could all enhance delivery. This will reinforce learning and widen the learners' range of experience.

The first Outcome is designed to introduce learners to different species of ornamental fish and the external and internal features and functions of those features for a range of species. Visits to aquariums and other aspects of the industry could be used to increase learner confidence and knowledge in the preparation for the assessment.

The second Outcome is both practical and knowledge-based. Learners are provided with knowledge of the different husbandry and feeding requirements of different species of fish chosen from the three groups identified earlier.

## Higher National Unit Support Notes (cont)

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For the third Outcome learners could be encouraged to research the current legislation that relates to the industry. A report based on a given scenario in the aquatics industry could be used to evidence understanding of the key issues.

### Guidance on approaches to assessment of this Unit

Evidence can be generated using different types of assessment. The following are suggestions only. There may be other methods that would be more suitable to learners.

The assessment for Outcome 1 could take the form of a closed-book assessment with short answer questions. Live specimens or diagrams could be used for identification of different species from the three groups, ie tropical freshwater, cold water and tropical marine groups.

In Outcome 2 learners are required to describe the causes and clinical signs of common diseases and health problems across the three groups, and this is assessed under closed-book conditions, with short answer questions recommended. For the practical assessment, learners will need to have access to either a pond or an aquarium to allow monitoring, feeding and maintenance skills to be demonstrated. This may be evidenced through the development of observational checklists and by asking learners to maintain a logbook over a period of three weeks. Due to limited access to aquaria or ponds, centres may wish to use group work for this aspect of the Outcome. If group work is used, centres must ensure the authenticity of the work and may wish to use questioning in addition to the suggested logbook and checklists.

For Outcome 3 a report based on a given scenario in the aquatics industry could be used to evidence understanding of effect of legislation on keeping fish in the UK.

Centres are reminded that prior verification of centre-devised assessments would help to ensure that the national standard is being met. Where learners experience a range of assessment methods, this helps them to develop different skills that should be transferable to work or further and higher education.

### Opportunities for e-assessment

E-assessment may be appropriate for some assessments in this Unit. By e-assessment we mean assessment which is supported by Information and Communication Technology (ICT), such as e-testing or the use of e-portfolios or social software. Centres which wish to use e-assessment must ensure that the national standard is applied to all learner evidence and that conditions of assessment as specified in the Evidence Requirements are met, regardless of the mode of gathering evidence. The most up-to-date guidance on the use of e-assessment to support SQA's qualifications is available at [www.sqa.org.uk/e-assessment](http://www.sqa.org.uk/e-assessment).



## Higher National Unit Support Notes (cont)

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### Opportunities for developing Core and other essential skills

This Unit may provide opportunities to develop the Core Skills of *Problem Solving* and *Working with Others*; and the Written component of the Core Skill of *Communication* all at SCQF level 5, although there is no automatic certification of Core Skills or Core Skills components.

Should learners provide response to the scenario provided in Outcome 3 in the form of a report, then this may provide opportunities to develop the written component of the Core Skill of *Communication* at SCQF level 5.

The practical component in Outcome 2 will require learners to demonstrate practical problem solving skills in the maintenance and the setting up of an aquarium or pond. Outcome 3 requires learners to conduct research and investigate a given scenario. Should the scenario represent a problem of solving situation requiring the interpretation and application of the impact of legislative requirements, this may develop the Core Skill of *Problem Solving* at SCQF level 5.

The practical component of Outcome 2 may involve learners working as part of a team in negotiating access to and working on the maintenance and/or setting up of an aquarium or pond. In this case, this may provide the opportunity to develop the Core Skill of *Working with Others* at SCQF level 5.

## History of changes to Unit

Version	Description of change	Date

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## General information for learners

### Unit title: Specialist Animal Care: Ornamental Fish (SCQF level 7)

This section will help you decide whether this is the Unit for you by explaining what the Unit is about, what you should know or be able to do before you start, what you will need to do during the Unit and opportunities for further learning and employment.

This Unit is intended to help prepare you for work in the animal care industry but is equally valuable if you have an interest in ornamental fish care.

The Unit has three main areas, with each comprising a separate Outcome.

Initially, you will study the anatomy and physiology of fish. Outcome 1 will enable you to recognise a variety of different species of ornamental fish from the three main groups of cold water, tropical freshwater and tropical marine. An understanding of the different species and their external and internal features will assist in Outcome 2 and is especially useful when studying health and disease.

The second Outcome is fish husbandry and covers holding Units (aquariums and ponds), handling, nutrition, water quality, health and disease. There will be an emphasis on health and safety, especially in the areas of handling and zoonoses. You will also have to care for an aquarium or an ornamental pond and demonstrate that you have the relevant practical skills to set them up and maintain them.

In the third Outcome you will gain knowledge of the current legislation in the different sectors of the ornamental fish aquatics industry which is an essential component if you choose to pursue your career in this field.

You are advised to gain as much practical experience as possible. Visits or voluntary work would allow you to increase both your practical skills and knowledge and understanding of the many different aspects of fish care. Working in an aquatics shop or on an ornamental fish farm could provide excellent practical experience.

To complete this Unit successfully you will have to achieve a satisfactory level of performance in the knowledge and practical assessments. The assessment for Outcome 1 will be under closed-book conditions and will require you to identify different species within the three main ornamental fish groups as well as identifying the main features of ornamental fish. For Outcome 2 your knowledge will be assessed under closed-book conditions in addition to assessment of your practical skills. In the final Outcome you will research the impact of legislation on these industries.

This Unit may also provide you with the opportunity to develop the written component of the Core Skill of *Communication* at SCQF level 5. Should you complete a report in response to Outcome 3, this will develop written communication skills. The practical nature of the Unit may also provide you with the opportunity to develop the Core Skill of *Problem Solving* at SCQF level 5. The Core Skill of *Working with Others* at SCQF level 5 may be developed as it is likely that you will work as part of a group when performing practical skills such as pond/aquarium maintenance.