



End-point assessment plan for Keeper and Aquarist apprenticeship standard

Apprenticeship standard reference number	Level of this end point assessment (EPA)	Integrated
ST0789	3	

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Introduction and overview

This document sets out the requirements for end-point assessment (EPA) for the Keeper & Aquarist apprenticeship standard. It is for end-point assessment organisations (EPAOs) who need to know how EPA for this apprenticeship must operate. It will also be of interest to Keeper & Aquarist apprentices, their employers and training providers.

Full time apprentices will typically spend 24 months on-programme (before the gateway) working towards the occupational standard, with a minimum of 20% off-the-job training. All apprentices will spend a minimum of 12 months on-programme.

The EPA period should only start, and the EPA be arranged, once the employer is satisfied that the apprentice is consistently working at or above the level set out in the occupational standard, all of the pre-requisite gateway requirements for EPA have been met and that they can be evidenced to an EPAO.

All pre-requisites for EPA assessment methods must also be complete and available for the assessor as necessary.

For level 3 apprenticeships and above apprentices without English and mathematics at level 2 must achieve level 2 prior to taking their EPA.

The EPA must be completed within an EPA period lasting a maximum of 3 month(s), beginning when the apprentice has passed the EPA gateway.

The EPA consists of 3 discrete assessment methods.

The individual assessment methods will have the following grades:

Assessment method 1: Multiple Choice Test

- Fail
- Pass
- Distinction

Assessment method 2: Observation

- Fail
- Pass
- Distinction

Assessment method 3: Professional discussion -underpinned by portfolio

- Fail
- Pass
- Distinction

Performance in the EPA will determine the overall apprenticeship standard and grade of:

- Fail
- Pass
- Distinction

EPA summary table

On-programme (typically 24 months)	Training to develop the occupation standard's knowledge, skills and behaviours.
End-point Assessment Gateway	<ul style="list-style-type: none"> • Employer is satisfied the apprentice is consistently working at, or above, the level of the occupational standard. • English/mathematics Level 2 <p>Apprentices must complete:</p> <ul style="list-style-type: none"> • A portfolio of evidence which must be produced by the Apprentice to be used to support the professional discussion.
End Point Assessment (which would typically take 6 months)	<p>Assessment Method 1: Multiple Choice Test</p> <p>With the following grades:</p> <ul style="list-style-type: none"> · Fail · Pass · Distinction <p>Assessment Method 2: Observation</p> <p>With the following grades:</p> <ul style="list-style-type: none"> · Fail · Pass · Distinction <p>Assessment Method 3: Professional discussion underpinned by portfolio</p> <p>With the following grades:</p> <ul style="list-style-type: none"> · Fail · Pass · Distinction

Length of end-point assessment period:

The EPA must be completed within an EPA period lasting a maximum of 3 month(s), beginning when the apprentice has passed the EPA gateway.

If an EPA assessment method is failed, it should be resat or retaken within the EPA period and in-line with the requirements set out in this assessment plan.

Order of assessment methods

The assessment methods can be delivered in any order and must be taken over two days.

Gateway

The EPA period should only start once the employer is satisfied that the apprentice is consistently working at or above the level set out in the occupational standard, that is to say they are deemed to have achieved occupational competence. In making this decision, the employer may take advice from the apprentice's training provider(s), but the decision must ultimately be made solely by the employer.

In addition to the employer's confirmation that the apprentice is working at or above the level in the occupational standard, the apprentice must have completed the following gateway requirements prior to beginning EPA:

English and mathematics at level 2.

For those with an education, health and care plan or a legacy statement the apprenticeships English and mathematics minimum requirement is Entry Level 3 and British Sign Language qualification are an alternative to English qualifications for whom this is their primary language.

For Multiple Choice Test:

- no specific requirements

For Observation:

- no specific requirements

For Professional discussion based on portfolio, the apprentice will be required to submit:

- A portfolio of evidence

The portfolio is used as a vehicle for the Apprentice to bring to life their Knowledge, Skills and Behaviours as required during questioning by the Independent Assessor. The portfolio will be used by the Apprentice to refer to, to exemplify a point. Questioning will be used to authenticate evidence, experience and competence. The portfolio must contain at least one piece of evidence mapped clearly to each of the knowledge, skills and behaviours (KSBs) assigned to the professional discussion. Each piece of evidence is expected to map to more than one KSB, resulting in typically 20 pieces of evidence to cover all KSBs assigned to the professional discussion. Reflective accounts and self-assessments should not be included as evidence.

The Portfolio Evidence table details a list of recommended types of evidence that can be included in the portfolio.

Recommended Evidence
Theory assignment with organogram of organisational structure

Evidence- photocopies, photos of written communication,
Diary of undertaken tasks, photos or video evidence
Practical task/ role play scenarios with tutors - tutor report/ statement
Presentation done in class or to staff about their research project - photos/ videos
Theory assignment on work place policies.
Diary of animal encounters from apprentice
Photocopy/ photo evidence of reporting
Theory assignment and written plan for a chosen species
Diary of evidence with photocopies/ photos of reporting
Evidence diary, photos, signed risk assessments
Research project on a chosen species
Research project, theory assignment and a poster presentation of aims, methods and results of research undertaken
Theory assignment, attending ethical review meeting at collection and evidence of this
Performance reviews
Performance review, supervisor statements
Diary of CPD

Assessment methods

Assessment Method 1: Multiple Choice Test (This Method has 1 component)

Method 1 Component 1:

Overview

The rationale for this assessment method is:

The Multiple Choice test will focus on relevant legislation; scientific principles and methods used in animal keeping as well as recognised best practice within the Keeper and Aquarist role at level 3.

The Multiple Choice test assessment method can be relatively easy to deliver and easy to mark, providing the assessor with a quantitative score. This enables bench marking for consistency across the standard.

The Multiple Choice test is inclusive as it focuses on testing the relevant Knowledge, not on the Apprentice's ability to write.

The Multiple Choice test will be computer based via an online application and marked electronically. Access to the test can be adjusted in-line with the EPAOs Reasonable Adjustments Policy.

Test Format

The test can be:

- Computer based

It will consist of 25 questions.

These questions will consist of:

- Closed response questions (e.g. multiple-choice questions)

Test administration

Apprentices must have 50 minutes to complete the test.

The test is closed book which means that the apprentice cannot refer to reference books or materials.

Apprentices must take the test in a suitably controlled environment that is a quiet space, free of distractions and influence, in the presence of an invigilator. The invigilator may be the Independent Assessor or another external person employed by the EPAO. The EPAO is required to have an invigilation policy that will set out how the test is to be carried out. This will include specifying the most appropriate ratio of apprentices to invigilators to best take into account the setting and security required in administering the test.

The EPAO is responsible for ensuring the security of testing they administer to ensure the test remains valid and reliable (this includes any arrangements made using online tools). The EPAO is responsible for verifying the validity of the identity of the person taking the test.

This assessment method will be carried out as follows:

Apprentices must complete the Multiple Choice test during the EPA period after being approved for gateway. The Multiple Choice test will consist of 25 multiple choice questions; for each question there will be four responses to choose from and there will one correct answer per question, each correct answer is worth one

mark. A pass is achieved with a mark of 15 - 20, a distinction is achieved with a mark of 21- 25 and anything below 15 is a fail. Each correct answer will be scored 1 and a blank or incorrect answer will score zero. The Multiple Choice test will take place under exam conditions, free of distractions and conducted in a professional manner with a qualified invigilator sourced by the EPAO. The invigilator to Apprentice ratio will be 1:25 and the EPAO will be required to develop an invigilator policy that will be adhered to in the same way for every Multiple Choice test.

The EPAO must verify the suitability of the venue for taking the test and the identity of the apprentice taking the test.

Marking

Tests must be marked by Independent Assessors or markers employed by the EPAO following a marking guide produced by the EPAO. Alternatively, marking by computer is permissible where questions types allow this, to improve marking reliability.

Any incorrect or missing answers must be assigned 0 marks.

Question and resources development

Questions must be written by EPAOs and must be relevant to the occupation. It is recommended that this be done in consultation with representative employers of this occupation. EPAOs should also maintain the security and confidentiality of their questions when consulting employers. EPAOs must develop 'question banks' of sufficient size to prevent predictability and review them regularly (and at least once a year) to ensure they, and the questions they contain, are fit for purpose.

Required supporting material

As a minimum EPAOs will produce the following material to support this method:

- a test specification
- sample tests and mark schemes
- live tests and mark schemes
- analysis reports which show areas of weakness for completed tests/exams and an invigilation policy.
- question banks

Assessment Method 2: Observation (This Method has 1 component)

Method 2 Component 1:

Overview

Apprentices must be observed by an independent assessor completing work in their normal workplace, in which they will demonstrate the KSBs assigned to this assessment method. The EPAO will arrange for the observation to take place, in consultation with the employer.

One assessor may observe up to a maximum of 1 apprentice at any one time, to allow for quality and rigour.

The rationale for this assessment method is:

The observation will provide Apprentices the opportunity to demonstrate that they can apply the Knowledge, Skills and Behaviours safely and effectively in their work environment. It will utilise the Apprentice's skills and link their theoretical knowledge to practical working.

Delivery

The observation will take 3 hours. This includes a total of 50 minutes for questioning (10 minutes of questioning at the end of each task), leaving 130 minutes for the observation of 5 tasks. Independent assessors must use the question bank as a source for questioning but must use their professional judgement to tailor those questions appropriately and are responsible for generating appropriate follow-up questions in-line with the assessor's training and the EPAO's standardisation process. Questioning may be used to cover assessment of those KSBs that do not naturally occur during the observation, but these must be kept to a minimum.

The timings of the tasks are allocated below:

Task One- 26 minutes for the observation plus 10 minutes at the end for questioning

Task Two – 42 minutes for the observation plus 10 minutes at the end for questioning

Task Three - 26 minutes for the observation plus 10 minutes at the end for questioning

Task Four - 26 minutes for the observation plus 10 minutes at the end for questioning

Task 5 – 10 minutes for the viewing of the recording plus 10 minutes at the end for questioning

The observation may be split into discrete sections held over a maximum of 1 working day. The length of a working day is typically considered to be 7.5 hours. The independent assessor has the discretion to increase the time of the observation by up to 10% to allow the apprentice to complete a task at the end of this component of the EPA.

The following activities MUST be observed during the observation:

The Independent Assessor must be unobtrusive whilst conducting the observation.

Task One: Diets

- Interpret and evaluate diet sheets in order to safely store, prepare and present the diet for a nominated species or group and consider the individual needs of the animals.

Task Two: Servicing an enclosure

- For a nominated species, safely enter, service, clean and exit the enclosure identifying any potential physical hazards and biohazards and dispose of the waste appropriately.
- Correctly collect, document and store a suitable veterinary sample.
- While looking at a nominated enclosure, assess the existing features and suitability of the enclosure, highlighting the existing features which allow the animal's physical, social and behavioural needs to be met, propose improvements that could be made to the enclosure to better meet these needs, and identify any potential physical hazards or biohazards.

Task Three: Enrichment

- For a nominated species, create and deliver suitable enrichment. Evaluate the effectiveness of the enrichment in terms of animal behaviour.

Task Four: Animal Training

- Identify and select an animal to train using positive reinforcement-based techniques and apply these techniques in the animal's routine, monitoring and recording the results and giving feedback to the responsible supervisor*
 - * In relation to this task a colleague can take on the role of responsible supervisor. The colleague will not be allowed to ask questions or prompt the apprentice in any way.

Task Five: Enhanced animal contact situation

- Post gateway, during the EPA period, the apprentice will be required to conduct an animal contact situation with a visitor, or live audience. This will be documented by video recording the apprentice only and should not include any visitors or audience members, to be played to the IA on the day of the observation.
- The animal contact situation must be a live demonstration with an animal and the recording of the encounter should be no more than 10 minutes (+10%).
- During this task the IA will view the recording during the observation time and assess the apprentice on the KSB's mapped to this method and ask any follow up questions required.

The observation should be conducted in the following way, to take account of the occupational context in which the apprentice operates:

For Tasks 1-5 the apprentice will have 10 minutes at the end of the task for the Independent Assessor to ask any questions based on the task to confirm the apprentice's understanding. Independent assessors must use the question bank as a source for questioning but must use their professional judgement to tailor those questions appropriately and are responsible for generating appropriate follow-up questions in-line with the assessor's training and the EPAO's standardisation process.

The Independent Assessor will not be allowed to ask any questions during the tasks and will have the opportunity to ask any questions during the time allocated at the end of the assessment.

KSBs observed, and answers to questions, must be documented by the Independent Assessor.

The Independent Assessor will make all grading decisions.

Support material

EPAOs will produce the following material to support this assessment method:

EPAOs will provide a standard template upon which to record the assessment outcome. EPAOs must review the tasks regularly (and at least once a year) to ensure they, and the specifications they contain, are 'fit for purpose.'

The assessment will be marked by an independent assessor appointed by an EPAO following a marking guide produced by the EPAO.

Venue

The observation can take place in:

- The apprentice's workplace

Question development

EPAOs will create open questions to assess related underpinning knowledge, skills and behaviours. They must develop 'question banks' of sufficient size to prevent predictability and review them regularly (and at least once a year) to ensure they, and the questions they contain, are fit for purpose.

Assessment Method 3: Professional discussion based on portfolio (This Method has 1 component)

Method 3 Component 1: Professional Discussion

Overview

This assessment will take the form of a professional discussion, which must be appropriately structured to draw out the best of the apprentice's competence and excellence and cover the KSBs assigned to this assessment method. It will involve the questions that will focus on coverage of prior learning or activity.

The professional discussion can take place in any of the following:

- employer's premises or via an online platform such as Skype.
- a suitable venue selected by the EPAO (e.g. a training provider's premises) - the EPAO is responsible for ensuring that the environment can facilitate the EPA where the employer's premises is not used.

The rationale for this assessment method is:

The Professional Discussion will question the Apprentice about how their Knowledge, Skills and Behaviours matched to those outlined/mapped. The Apprentice can refer to their portfolio to assist with examples to use for discussion.

Delivery

The independent assessors will conduct and assess the professional discussion.

The professional discussion must last for 90 minutes. The Independent Assessor has the discretion to increase the time of the professional discussion by up to 10% to allow the apprentice to complete their last answer.

Further time may be granted for apprentices with appropriate needs, in-line with the EPAO's Reasonable Adjustments Policy.

During this method, the independent assessor must combine questions from the EPAO's question bank and those generated by themselves.

The professional discussion will be conducted as set out here:

The Professional Discussion will be a structured discussion between the Apprentice and Independent Assessor. It will also cover the Apprentice's achievements, the standard of their work and their approach. The Portfolio of Evidence will be used to inform questioning during the professional discussion.

The Professional Discussion will be a length of 90 minutes (+ 10% at the discretion of the assessor, to provide scope for the Apprentice to demonstrate their full abilities) and will be used to assess the Keeper/Aquarist on:

- Knowledge, Skills and Behaviours, mapped in the mapping table, using the Apprentice's portfolio of evidence to underpin the discussion. (The portfolio is not assessed).

The Professional Discussion will provide the opportunity for the Apprentice to synoptically demonstrate Knowledge, Skills and Behaviours.

The portfolio must be reviewed by the Independent Assessor; therefore, it must be submitted at Gateway stage. The portfolio is used as a vehicle for the Apprentice to bring to life their Knowledge, Skills and Behaviours as required during questioning by the Independent Assessor. The portfolio will be used by the Apprentice to refer to, to exemplify a point. Questioning will be used to authenticate evidence, experience and competence.

The Professional Discussion will also test the currency, validity and coverage of the evidence presented in the portfolio in relation to the Knowledge, Skills and Behaviours. The Independent Assessor will use standardised competency-based questions from an agreed set of questions developed by the EPAO. Questions will be reviewed annually and moderated by the EPAO. The EPAO will also provide a template to record Apprentice responses.

There will be a minimum of 15 competency-based questions asked during the Professional Discussion.

Follow-up questions may be used in addition to the competency-based questions during the 90-minute assessment duration to probe further into the detail to satisfy the Independent Assessor of the Apprentice's depth of Knowledge and Skills. The Professional Discussion will be conducted under controlled conditions. The Apprentice's responses will be documented by the Independent Assessor.

A structured brief will be provided by the EPAO in the Assessment Tools, to be used by the independent assessor in the Professional Discussion. This will ensure that a consistent approach is taken and that all key areas are appropriately explored.

Video conferencing can be used to conduct the professional discussion, but the EPAO must have processes in place to verify the identity of the apprentice and ensure the apprentice is not being aided in some way.

The Independent Assessor must use the assessment tools and procedures that are set by the EPAO to record the professional discussion.

The independent assessor will make all grading decisions.

Venue

The professional discussion should take place in a quiet room, free from distractions and influence.

Other relevant information

A structured specification and question bank must be developed by EPAOs. The 'question bank' must be of sufficient size to prevent predictability and review it regularly (and at least once a year) to ensure that it, and its content, are fit for purpose. The specifications, including questions relating to the underpinning knowledge, skills and behaviours, must be varied yet allow assessment of the relevant KSBs.

EPAOs must ensure that apprentices have a different set of questions in the case of re-sits/re-takes.

Independent Assessors must be developed and trained by the EPAO in the conduct of professional discussion and reaching consistent judgement.

EPAOs will produce the following material to support this assessment method:

The Independent Assessor will use standardised competency-based questions from an agreed set of questions developed by the EPAO. Questions will be reviewed annually and moderated by the EPAO. The EPAO will also provide a template to record Apprentice responses. A structured brief will be provided by the EPAO in the Assessment Tools, to be used by the Independent Assessor in the Professional Discussion. This will ensure that a consistent approach is taken and that all key areas are appropriately explored.

Weighting of assessment methods

All assessment methods are weighted equally in their contribution to the overall EPA grade.

Grading

Assessment method 1: Multiple Choice Test – Please see the mapping table below for details of KSB's mapped to this method.

The following grade boundaries apply to the test:

Grade	Minimum score	Maximum score
Distinction	21	25
Pass	15	20
Fail	0	14

Assessment method 2: Observation

Task One - Diets			
KSBs	Fail	Pass	Distinction
<ul style="list-style-type: none"> K15 nutritional requirements of a range of wild species across all life stages and how diets are safely stored, formulated, prepared, and delivered including weight 	Does not meet the pass criteria	Achieve all pass criteria in the grading table: <ul style="list-style-type: none"> Describes how nutritional requirements could change across life stages, explain how these can be met and how they fit into the 5 welfare needs of an animal 	

<p>management, supplementation and food hygiene e.g. Artemia to fry (brine shrimp/mysis) to adult seahorses</p> <ul style="list-style-type: none"> • S2 Demonstrate how the 5 welfare needs of an animal can be used as a basis to provide the animal with opportunities to display positive welfare, including providing a suitable environment and diet (including water), housing the animal in appropriate social groupings and protecting it from fear, pain, suffering, injury and disease and providing an environment where normal behaviour can be displayed • S15 Interpret diet sheets and safely store, prepare and present diets in a manner 		<ul style="list-style-type: none"> • Demonstrates how they meet one of the welfare needs of an animal through diet and provision of water • Evaluates diets and proposes suitable modifications, e.g. changes based on history and can justify this evaluation • Interprets diet sheets and safely prepares and presents diets in a manner which promotes species-specific natural behaviours ensuring it is fresh, whilst taking into consideration individual needs (e.g. geriatric, disabled, etc.) • Proposes modifications to diets e.g. to minimise the amount of uneaten food and contingent wastage, promote physical and psychological health and welfare, 	
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<p>which promotes species-specific natural behaviours, also considering individual needs (e.g. geriatric, disabled, etc.)</p> <ul style="list-style-type: none"> • S16 Evaluate diets and propose modifications e.g. to minimise the amount of uneaten food and contingent wastage, promote physical and psychological health and welfare meeting nutritional needs 		<p>meeting nutritional needs</p>	
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Task Two – Service an Enclosure			
KSBs	Fail	Pass	Distinction
<ul style="list-style-type: none"> • K2 work place policies and procedures, such as working safely with higher risk animals 	<p>Does not meet the pass criteria</p>	<ul style="list-style-type: none"> • Achieve all pass criteria in the grading table: • Works safely in-line with Health & Safety legislation, workplace policies and procedures and 	<p>Achieve all pass criteria as detailed and meets the following additional criteria:</p> <ul style="list-style-type: none"> • Discusses other types of substrates for the enclosure and demonstrates an understanding of why

<p>and higher risk environments, working at height, working with chemicals, working with tools, manual handling, risk assessment, fire safety, relevant PPE, managing health and wellbeing</p> <ul style="list-style-type: none"> • K20 the principles of enclosure/tank design including the needs of each stakeholder group (e.g. visitor needs: viewing windows, accessible paths, etc.), the needs of the animals (e.g. places to hide) (bio)hazards connected to the enclosure design, enclosure components and furnishings e.g. aquariums and keeper/aquarist access to the LSS • K22 factors affecting zoo bio security for wild species under their care and appropriate control measures to 		<p>with constant situational awareness and adaptability to ensure safety of the animal(s), themselves and others</p> <ul style="list-style-type: none"> • Explains how the enclosure design meets the needs of the animals and the public, suggests how the enclosure/tank could be improved in-line with the 5 welfare needs of the animal. • Carries out safe housekeeping regimes taking account of the environment, equipment use and species specific needs • Uses initiative and maximises productivity and efficiency • Follows procedures for waste management and disposal 	<p>they would/wouldn't select these</p>
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<p>maintain bio security e.g. net dips</p> <ul style="list-style-type: none"> • K24 the principles of housekeeping including cleaning, enclosure/tank management, Life Support Systems maintenance, products used and their associated hazards, frequency of cleaning based on situation, species and individual considering factors such as scent marking or removal of body fluids e.g. fish safe cleaning products • K26 strategies for compliant and sustainable waste management and recycling • S1 Work effectively in a safe and healthy working environment following current/relevant health and safety legislation and work place policies such as working safely with wild/higher risk animals and higher 		<ul style="list-style-type: none"> • Uses, maintains and stores a range of tools correctly, including electrical tools, appropriate to the workplace • Selects optimal enclosure substrates and furnishings and maintains them within the enclosure e.g. cleans appropriately, monitors condition and replaces as appropriate • Identifies potential and existing physical and bio hazards within an enclosure and associated areas, responding and participating in alterations/solutions where possible, reporting more complex issues to the relevant staff, all within a timely manner • Demonstrates how they meet the welfare needs of an animal 	<ul style="list-style-type: none"> •
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<p>risk environments, working at height, working with chemicals, working with tools, manual handling, risk assessment, fire safety, relevant PPE</p> <ul style="list-style-type: none"> • S2 Demonstrate how the 5 welfare needs of an animal can be used as a basis to provide the animal with opportunities to display positive welfare, including providing a suitable environment and diet (including water), housing the animal in appropriate social groupings and protecting it from fear, pain, suffering, injury and disease and providing an environment where normal behaviour can be displayed • S17 Correctly follow procedures for waste management and disposal including hazardous materials, biosecurity risks, 		<ul style="list-style-type: none"> • Assesses the strengths and weaknesses of different enclosure designs from the point of view of each stakeholder group • Demonstrates factors to consider before entering the enclosure/tank • Explains how frequently and how thoroughly the enclosure/tank should be cleaned and why • Explains what circumstances they might choose not to clean the enclosure/tank • Explains under what circumstances they would deep clean the enclosure/tank • Selects, uses, stores and maintains appropriate tools and products and explains why they are selecting and using them 	
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<p>legally regulated materials</p> <ul style="list-style-type: none"> • S25 Assess the strengths and weaknesses of different enclosure/tank designs from the point of view of each stakeholder group (e.g. animals, keepers, vet team, visitors, educators, researchers) and propose improvements, if required • S26 Select optimal enclosure substrates and furnishings and maintain them within the enclosure/tank e.g. clean appropriately, monitor condition and replace as appropriate e.g. coral chip and a siphon schedule • S27 Identify potential and existing physical and bio hazards within an enclosure and associated areas, responding and participating in 		<ul style="list-style-type: none"> • Demonstrates factors they are considering before exiting the enclosure/tank • Explains how the enclosure/tank meets the needs of keepers, veterinary and maintenance staff, researchers, educators and visitors and how the enclosure could be improved • Demonstrates routine safety and maintenance checks they would carry out on the enclosure and how to do these checks safely • Demonstrates they are safety conscious and always maintain safe working practices • Has constant situational awareness and adaptability to ensure safety of the animal(s), 	
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<p>alterations/solutions where possible, reporting more complex issues to the relevant staff, all within a timely manner</p> <ul style="list-style-type: none"> • S28 Use, maintain and store a range of tools and equipment correctly, including electrical tools, appropriate to the workplace • S31 Carry out safe housekeeping regimes including the safe use and disposal of products used, cleaning of enclosures/tanks, public areas, Life Support Systems maintenance, and their associated hazards, frequency of cleaning based on situation, species and individual considering factors such as scent marking or removal of body fluids to required standard, according to species specific standard 		<p>themselves and others, including proactively assessing risks and mitigating these immediately</p>	
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Task Three - Enrichment			
KSBs	Fail	Pass	Distinction
<ul style="list-style-type: none"> • K11 the natural history of the animals in their care and how they are best managed and exhibited to suit their species-specific needs. This is to include their environmental parameters (e.g. temperature, humidity, pH and UV), behavioural needs including habitat type and feeding behaviour, their social needs (e.g. group dynamic) and psychological needs (e.g. quiet environments) • S12 Develop, implement and evaluate (including safety evaluation) appropriate sensory and cognitive enrichment in accordance with enclosure/tank design and species-specific needs e.g. simulating 	Does not meet the pass criteria	<p>Achieve all pass criteria in the grading table:</p> <ul style="list-style-type: none"> • Demonstrates how to develop, implement and evaluate appropriate sensory and cognitive enrichment, considering enclosure design and species-specific needs • Records the enrichment provided and any noted behaviours in the appropriate record system • Demonstrates an understanding of environmental, psychological, behavioural and social needs of animals under their care and how this may influence exhibitory and management e.g. the provision and management of complex, challenging and regulated environments to optimise welfare 	<p>Achieve all pass criteria as detailed and meets the following additional criteria:</p> <ul style="list-style-type: none"> • Offers creative solutions to problems suggesting modifications/improvements for future application of enrichment

<p>hunting behaviours in big cats, stingrays and sharks</p> <ul style="list-style-type: none"> • S13 Identify individual animals through transponders, photos, ear tags, leg bands, individual markings, sex determination 		<ul style="list-style-type: none"> • Explains how the enrichment meets the needs of the species • Explains what safety factors should be considered when preparing and delivering enrichment • Identifies individual animals describing what methods can be used to identify individuals in the group 	
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Task Four – Animal Training			
KSBs	Fail	Pass	Distinction
<ul style="list-style-type: none"> • S11 Observe, describe and interpret animal behaviour (innate, learned, abnormal), including species specific behaviours for species in their care, taking response action where appropriate including reporting to the supervisor or 	<p>Does not meet the pass criteria</p>	<p>Achieve all pass criteria in the grading table:</p> <ul style="list-style-type: none"> • Observes animal behaviour including species specific behaviours and accurately describes and interprets the animal behaviours (innate, learned, abnormal) in order to identify, if any appropriate action is required 	<p>Achieve all pass criteria as detailed and meets the following additional criteria:</p> <ul style="list-style-type: none"> • Describes other types of reinforcement techniques e.g. negative reinforcement • Uses and understands animal training terminology e.g. bridging • Evaluates the success of the training session and suggests amendments/improvements for future training sessions

<p>recording in animal records system</p> <ul style="list-style-type: none"> • S21 Train animals using positive reinforcement-based techniques in various situations (e.g. target training with a single animal) and apply these techniques in the animal's routine, monitoring and recording the results and giving feedback to the responsible supervisor 		<ul style="list-style-type: none"> • Trains or maintains a trained behaviour using positive reinforcement-based techniques • Monitors and records the results giving feedback to the responsible supervisor • Explains why they have chosen the reward and what is motivating the animal to participate in the session 	
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Task Five – Enhanced Animal Contact			
KSBs	Fail	Pass	Distinction
<ul style="list-style-type: none"> • K9 common ethical concerns of the public and the corresponding ethical position taken by their organisation including their 	<p>Does not meet the pass criteria</p>	<p>Achieve all pass criteria in the grading table:</p> <ul style="list-style-type: none"> • Demonstrates a responsible attitude towards themselves, others and the animal(s) in their care, showing respect, empathy, patience and tolerance, including working with methods that reduce any risk of physical injury and emotional stress to 	<p>Achieve all pass criteria as detailed and meets the following additional criteria:</p> <ul style="list-style-type: none"> • Uses a variety of techniques when delivering the keeper talk/animal contact situation e.g. pitch, tone, body language, eye contact • Demonstrates a tailored approach to

<p>organisations protocols</p> <ul style="list-style-type: none"> • S29 Monitor and take responsibility of the health and safety of the visitors and welfare of the animals in enhanced animal contact situations, especially with higher risk and wild species, such as visitor encounter, keeper for a day experiences, walkthrough enclosures, animal handling sessions, taking action when required to minimise risks and stress • B15 being customer focused, polite and friendly 		<p>animal(s), themselves or others</p> <ul style="list-style-type: none"> • Monitors and takes responsibility for the health and safety of the visitors and welfare of the animals in enhanced animal contact situations • Acts accordingly to minimise risks and stress in animal contact sessions • Demonstrates a customer focused approach and is polite and friendly • Describes factors they consider before beginning this encounter • Explains how they would respond if the visitor was to attempt an action that is dangerous, or negatively affects the welfare of the animal • Describes what sort of ethical concerns or criticisms they might expect a visitor to have about the zoo, and the corresponding ethical position taken by their 	<p>engage different types of audiences by adapting the delivery and content of information</p> <ul style="list-style-type: none"> •
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		<p>organisation including their organisations protocols</p> <ul style="list-style-type: none"> Explains why they think it is important that the visitors have a positive experience 	
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All Observation Tasks 1 – 5 (the following behaviours may be assessed in any of these tasks)

KSBs	Fail	Pass	Distinction
<ul style="list-style-type: none"> B1 Be safety conscious and maintain safe working practices, which must be adhered to at all times with constant situational awareness and adaptability to ensure safety of the animal(s), themselves and others, including proactively assessing risks and mitigating these immediately. 	Does not meet the pass criteria	<p>Achieve all pass criteria in the grading table:</p> <ul style="list-style-type: none"> Works safely in-line with Health & Safety legislation, workplace policies and procedures and with constant situational awareness and adaptability to ensure safety of the animal(s), themselves and others Demonstrates respect of the legal duty of care under animal health and welfare legislation and codes of practice and other relevant legislation affecting the keeping of animals Demonstrates respect and empathy for animals in their care 	

<ul style="list-style-type: none"> • B5 Respect and empathy for animals • B7 Be respectful of the legal duty of care under animal health and welfare legislation and codes of practice and other relevant legislation affecting the keeping of animals • B9 respecting the values of the work place • B12 using initiative and maximising productivity and efficiency • B14 being aware of the surroundings and noticing and responding to problems that may adversely affect public 		<ul style="list-style-type: none"> • Demonstrates an awareness of the surroundings, noticing and responding to problems that may adversely affect public perception (e.g. litter-picking) • Uses initiative, working effectively and effeciently 	
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perception (e.g. litter-picking)			
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Assessment method 3 Professional discussion based on portfolio

KSBs	Fail	Pass	Distinction
<ul style="list-style-type: none"> K4 key stakeholders for their area of work, including their organisation structure, organisation mission, regional, national and international associations as appropriate, e.g. BIAZA, EAZA, WAZA, AZA, ZAA K5 information needs of internal/external audiences, including what information is appropriate and the factors that need to be taken into consideration, such as communicating animal births/deaths to a range of audiences and methods of communication and the appropriate communication methods for specific audiences, i.e. internal/external, such as presentations, demonstrations, scientific publications, media 	Does not meet the pass criteria	<p>Achieve all pass criteria as follows:</p> <ul style="list-style-type: none"> Identifies key stakeholders for their area of work Identifies the information needs of internal and external audiences and communicates this accurately Explains organisational procedures for responding to workplace emergencies Describes their ability to prioritise more critical and less critical activities/tasks and demonstrating adaptability to change Provides examples of when they have of 	<p>Achieve all pass criteria as detailed and meets the following additional criteria:</p> <ul style="list-style-type: none"> Describes the impact of their actions on themselves, others, animal welfare and health and safety, appreciating the wider policy implications and reputational risk Predicts possibility of unintentional outcomes to husbandry procedures and suggests improvements / alternatives

<p>releases, social media posts, staff meetings, reports</p> <ul style="list-style-type: none"> • K7 the increasingly significant role zoos play globally in conserving species and their habitats, including the International Union for Conservation of Nature (IUCN) one plan conservation approach • K8 the changing roles of zoos and how this applies to zoos, including their own collection, in relation to conservation, research, education, visitor experience, promotion of positive behaviour change in the public, welfare management, enclosure design • K13 population management and its effectiveness including; determination of a range of wild species, same sex groups, breed and cull, and contraception, introduction, the importance of genetic diversity and the consequences of hybridisation and inbreeding e.g. seahorse breed and cull, new fish introduction into a tank • K16 welfare assessment using appropriate welfare assessment tools such as signs of ill health and injury, behaviour monitoring, body condition scoring, specimen collection, faecal scoring, food intake e.g. gill/skin scrapes from 		<p>communicatedg information effectively with internal and external audiences in a timely manner</p> <p>Describes how they actively listen, prioritise information, confirm understanding and react accordingly to the level of risk</p> <p>Accurately describes the increasingly significant role zoos play globally in conserving species and their habitats, including the International Union for Conservation of Nature (IUCN) one plan conservation approach</p> <p>Accurately explains the changing roles of zoos and how this applies to their zoo’s collection in relation to conservation, research, education, visitor experience, promotion of positive behaviour change in the public, welfare management, enclosure design</p> <p>Describes a range of health assessment tools used to identify signs of ill health and injury</p>	<ul style="list-style-type: none"> • Demonstrates evidence of drawing on knowledge from a wide range of sources e.g. research channels, new concepts/theories, new trends to show a personal interest in zoo and aquarium animal management • Provides an example of how and why the role of a named wild animal collection has or might change in relation to one of the following: conservation, research, education, visitor experience, promotion of positive behaviour change in the public, welfare management, enclosure design
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<p>fish and the preparation/storage of the slides</p> <ul style="list-style-type: none"> • K19 how and why to record and retrieve information and write reports using a range of systems relevant to zoo keeping within their organisation, such as diaries, ZIMS, Tracks, PMX, Excel, following instruction to retrieve data or update information and following procedures designed to keep data secure • K23 organisational protocols for dealing with emergencies (e.g. animal escape, unintentional human-animal contact, fire, human medical emergency) and understand their role within this • K25 basic horticultural principles in relation to wild animal collections and species, e.g. care of enclosure plants, knowledge of edible browse species, knowledge of toxic plants and their management e.g. using aquaponic systems to help filter the water • K27 the importance of zoo or aquarium research and the types of research undertaken in zoos/aquariums (e.g. behavioural observation, genetic, nutritional, records based) 		<p>Describes the basic horticultural principles in relation to wild animal collections and species</p> <p>Describes the importance of zoo or aquarium research and some methods of research undertaken in zoos/aquariums</p> <p>Shows evidence of successfully delivering a talk/presentation and the ability to accurately tailor their style of communication to the audience and can describe clearly the rationale for using a range of resources</p> <p>Outlines the benefits and describes how to accurately record, retrieve and monitor information and shows evidence of writing reports using a range of systems</p> <p>Describes different situations when they have used information from reliable sources to help decision making</p> <p>Explains the importance of population management, reasons for breeding and</p>	<ul style="list-style-type: none"> • Demonstrates an understanding of why specific health assessment tools are used to identify ill health and injury • Includes examples of named plant species and why they are appropriate or inappropriate for a chosen animal species • Provides an example of zoo or aquarium research that has been undertaken and how the findings have been or could be applied
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<ul style="list-style-type: none"> • S3 Prioritise more critical and less critical activities and tasks using scheduling techniques that enable them to meet deadlines and allow for unexpected tasks, such as an animal medical emergency, daily animal husbandry, visitor safety and staff absence • S4 Communicate information clearly and within a timely manner with internal audiences such as colleagues, vets, managers and contractors concisely, accurately and in ways that promote understanding – verbally as well as in writing (e.g. daily reports, diaries) adjusting and prioritising information and being mindful of the impact • S5 Communicate effectively with external audiences such as the scientific community, general public/ visitors and media in a range of contexts including presentations, public speaking, visitor engagement, conservation education activities, customer service and delivering keeper experiences in order to educate about animal life histories and conservation issues, promoting awareness of the role of zoos/aquariums in conservation and encouraging sustainable behaviour change • S6 Actively listen, process and prioritise information, confirm understanding and react according 		<p>methods of control, including the value of genetic diversity and the consequences of hybridisation and inbreeding and the advantages and disadvantages of contraception, same sex groups and culling</p> <p>Describes the principles of Animal Introductions including motives, planning, species specific challenges, acclimatisation and environmental modifications</p> <p>Shows evidence of how they have used the principles of population management to create a basis population management plan</p> <p>Provides evidence of how to deal appropriately with difficult situations following workplace policies and procedures underatnding the level of risk</p> <p>Shows evidence of assisting with the capture and restraint of animals and confidently describes relevant</p>	
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<p>to level of risk e.g. lost child procedure, animal escape, instruction from senior staff</p> <ul style="list-style-type: none"> • S7 Devise and deliver a talk/presentation using a range of appropriate resources such as audio/visual equipment, PowerPoint slides, physical props • S8 Deal appropriately with difficult issues (e.g. visitor/internal conflicts and complaints) following workplace policies and procedures • S9 Accurately record, retrieve and monitor information and write reports using a range of systems relevant to zoo/aquarium keeping within your organisation, such as diaries, ZIMS, Tracks, Excel following instruction to retrieve data or update information and follow workplace procedures designed to keep data secure • S10 Use information from reliable sources using scientific nomenclature of taxa for a variety of purposes such as gathering information to share with the public and/or science community, researching information to underpin enclosure/tank design and husbandry plans including use of recognised assessment tools to identify species or habitat conservation status 		<p>techniques and reasons for their use</p> <p>Shows evidence of demonstrating best practice guidelines for animal moves, identifying appropriate methods of transportation for a variety of scenarios, considering species, health and safety, welfare risks and mitigations and legislation</p> <p>Shows evidence of correctly collecting, documenting and storing a suitable sample for veterinary monitoring</p> <p>Shows evidence of assessing the severity and reporting potential health of animals and continually monitoring animal health</p> <p>Explains their role in supporting emergency procedures and drills and can discuss their collections current emergency procedures</p> <p>Shows evidence of designing and implementing a research project</p>	
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<ul style="list-style-type: none"> • S14 Create a plan using the principles of population management in line with the organisation collection plan, such as the introductory meeting of a species, taking into consideration individual suitability (e.g. health status, age, social hierarchy, reproductive status), practical set up, potential issues and solutions e.g. introducing a males and females for breeding or forming single sex groups/mixed species • S18 Identify which equipment, methods of approach, capture, handling, restraint and loading are best for specific situations and species, create plans for and make informed decisions to facilitate this e.g. fish species that are net sensitive or elasmobranchs that are trained to go in to a stretcher • S19 Show confidence in assisting with the capture and restraint of wild and high-risk species • S20 Identify the most appropriate methods of successfully transporting animals, considering: species, level of risk, duration, animal welfare considerations, health and safety, legislation e.g. maintaining the temperature of the water for an overnight transport 		<p>including a small number of variables or indicators, using tried and tested research methods</p> <p>Discusses the results and summarises the finding, including descriptive statistics</p> <p>Explains their role in providing safety and security to zoo animals, staff and visitors</p> <p>Explains professional and ethical workplace behaviour, including the consequences of not working to organisational standards</p> <p>Shows evidence of continued professional development throughout their apprenticeship</p> <p>Understands the limit of their own authority and ability, discusses examples of when they have asked for guidance and taken responsibility for own mistakes, identifying lessons learnt</p>	
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<ul style="list-style-type: none"> • S22 Identify, assess severity of and report potential health issues in animals in a timely manner. Monitor changes in health of animals and report their findings to a supervisor or veterinarian e.g. signs of ill health or injury, behaviour monitoring, body condition scoring, faecal scoring, food intake • S23 Correctly collect, document and store suitable samples as part of veterinary health monitoring e.g. hair, faecal, urine, gill • S24 Administer treatment following instruction from a veterinarian/competent staff member (e.g. administration of medication to an individual/group, parasite treatments, nail/hoof trimming) e.g. salt treatment, Aquatet etc. • S30 Comply with and support other staff in complying with emergency protocols e.g. animal escape drills, fire etc • S32 Design and implement research projects; including a small number of variables or indicators, using tried and tested research methods e.g. single animal case studies of behaviour challenges 		<p>Explains how they have administered treatment following instruction from a relevant member of staff e.g. a vet</p> <p>Demonstrates a strong work ethic and a willingness to learn</p> <p>Demonstrates respectful, punctual, reliable, trustworthy and diligent behaviour and shows they are prepared to work irregular hours, in all weathers</p> <p>Demonstrates respect for the values of the workplace</p> <p>Demonstrates how they have contributed to quality outcomes as part of a team</p>	
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<ul style="list-style-type: none"> • S33 Analyse results and summarise findings using reporting tools including descriptive statistics, listing methods of dissemination of results including where relevant research might be published and considering the implications of findings for practices within their organisation • B2 Have a strong work ethic and a willingness to learn. Be respectful, punctual, reliable, trustworthy and diligent and prepared to work irregular hours, in all weathers. Take pride in their work, showing commitment and loyalty, whilst conducting themselves in a professional manner, both in terms of their presentation and conduct. Have a responsible attitude towards themselves, others and the animal(s) in their care, showing respect, empathy, patience and tolerance in all situations, including working with methods that reduce any risk of physical injury and emotional stress to animal(s), themselves or others. • B3 Professional and ethical responsibilities and the values of their work place. • B4 An awareness of the limits of their own authority, expertise, training, competence and experience. 			
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<ul style="list-style-type: none"> • B8 Have a positive approach to working within a team and have the ability to work both individually and as part of a team as required, understanding their role and changing priorities when the situation dictates to meet organisational objectives. Be willing to develop productive working relationships with colleagues and stakeholders. • B10 being open to new ideas, willing to develop skills and new ways of working and being committed to ongoing professional development • B13 being flexible with respect to changing demands, priorities, schedules, working hours, weather conditions • B11 knowing when to ask for advice or guidance when unsure and learning from these experiences. Self-reflection in taking responsibility for own actions and mistakes, reporting them immediately, and identifying lessons learnt 			
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Overall EPA grading

All EPA methods must be passed for the EPA to be passed overall.

This apprenticeship includes fail, pass and distinction grades. To achieve an overall pass grade Apprentices must pass all 3 assessment methods. To achieve a distinction grade all the pass criteria needs to be achieved, and all

the distinction criteria needs to be achieved on all the EPA elements below. A final grade will be awarded in-line with the criteria below:

The observation assessments will be graded holistically with the Apprentice having to achieve all pass criteria for every task in order to achieve a pass grade and all pass criteria for every task and all distinction criteria for every task in order to achieve a distinction.

Grades from individual assessment methods should be combined in the following way to determine the grade of the EPA as a whole:

Observation Assessment Grade	Professional Discussion Grade	Online Test	Overall Grade Achieved
If an Apprentice fails any one of the assessments it will be deemed to be an overall fail			
Pass	Pass	Pass	Pass
Pass	Pass/Distinction	Pass/ Distinction	Pass
Pass/ Distinction	Pass	Pass/ Distinction	Pass
Pass/ Distinction	Pass/ Distinction	Pass	Pass
Distinction	Distinction	Distinction	Distinction

Roles and responsibilities

Role	Responsibility
Apprentice	<ul style="list-style-type: none"> • complete the on-programme element of the apprenticeship • prepare for and complete the EPA
Employer	<ul style="list-style-type: none"> • identify when the apprentice is ready to pass the gateway and undertake their EPA • notify the EPAO that the apprentice has passed the gateway
EPAO	<p>As a minimum EPAOs should:</p> <ul style="list-style-type: none"> • appoint administrators/invigilators and markers to administer/invigate and mark the EPA • provide training and CPD to the independent assessors they employ to undertake the EPA • Create learner specifications detailing the EPA, process, content etc. • ensure there is no direct connection with the apprentice, their employer or training provider i.e. there must be no conflict of interest • have processes in place to conduct internal quality assurance and do this on a regular basis • organise standardisation events and activities in accordance with this plan's IQA section • organise and conduct moderation of independent assessors' marking in accordance with this plan • have, and operate, an appeals process • conform to the requirements of the nominated EQA provider
Independent assessor	<p>As a minimum an Independent assessor should:</p> <ul style="list-style-type: none"> • be independent of the apprentice, their employer and training provider(s) i.e. there must be no conflict of interest • hold or be working towards an independent assessor qualification e.g. A1, and have had training from their EPAO in terms of good assessment practice, operating the assessment tools and grading • have the capability to assess the apprentice at this level i.e. meet the occupational requirements as set out in the IQA section of this assessment plan • attend the required number of EPAOs standardisation and training events per year (as defined in the IQA section)
Training provider	<p>As a minimum the training provider should:</p> <ul style="list-style-type: none"> • work with the employer to ensure that the apprentice is given the opportunities to develop the KSBs outlined in the standard and monitor their progress during the on-programme period • advise the employer, upon request, on the apprentice's readiness for EPA prior to the gateway • Plays no part in the EPA itself

Colleague	<ul style="list-style-type: none"> •take on the role of supervisor for observation (in the absence of the apprentice's supervisor) - task 4 and receive feedback from the apprentice. The colleague will not be expected to ask questions or respond.
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Internal Quality Assurance (IQA)

Internal quality assurance refers to the requirements that EPA organisations must have in place to ensure consistent (reliable) and accurate (valid) assessment decisions. EPA organisations for this EPA must:

- appoint Independent Assessors who have knowledge of the following occupational areas: The Independent Assessor should have worked as a keeper or aquarist within the zoological industry for at least 5 years.
- appoint independent assessors who are competent to deliver the end-point assessment and who meet the following minimum requirements:
 - Occupationally competent demonstrated by work experience in the zoological sector
 - Qualified to a level 3 or above
 - Hold, or be officially working towards, a nationally recognised assessor qualification, e.g. A1, Certificate in Assessing Vocational Achievement (CAVA)
 - Relevant work experience as a Zoo Keeper / Aquarist with a minimum of 5 years working experience in the zoological sector
- provide training for Independent Assessors in terms of good assessment practice, operating the assessment tools and grading
- have robust quality assurance systems and procedures that support fair, reliable and consistent assessment across the organisation and over time.
- operate induction training and standardisation events for Independent Assessors when they begin working for the EPAO on this standard and before they deliver an updated assessment method for the first time. Annual standardisation should also take place to ensure the continuation of a consistent approach to assessment; all assessors will be expected to attend these meetings.

Re-sits and re-takes

Apprentices who fail one or more assessment method will be offered the opportunity to take a re-sit or a re-take. A re-sit does not require further learning, whereas a re-take does.

Apprentices should have a supportive action plan to prepare for the re-sit or a re-take. The apprentice's employer will need to agree that either a re-sit or re-take is an appropriate course of action.

An apprentice who fails an assessment method, and therefore the EPA in the first instance, will be required to re-sit or re-take any failed assessment methods only.

Any assessment method re-sit or re-take must be taken during the maximum EPA period, otherwise the entire EPA must be taken again, unless in the opinion of the EPAO exceptional circumstances apply outside the control of the apprentice or their employer.

Re-sits and re-takes are not offered to apprentices wishing to move from pass to distinction.

Where any assessment method has to be re-sat or re-taken, the apprentice will be awarded a maximum EPA grade of pass, unless the EPAO determines there are exceptional circumstances requiring a re-sit or re-take.

Affordability

Affordability of the EPA will be aided by using at least some of the following practice:

- using an employer's premises
- online assessment

Professional body recognition

Professional body recognition is not relevant to this occupational apprenticeship.

Reasonable adjustments

The EPAO must have in place clear and fair arrangements for making reasonable adjustments for this apprenticeship standard. This should include how an apprentice qualifies for Reasonable Adjustment and what Reasonable Adjustments will be made. The adjustments must maintain the validity, reliability and integrity of the assessment methods outlined in this assessment plan.

Mapping of knowledge, skills and behaviours (KSBs)

MCT- Multiple Choice Test

O – Observation

PD - Professional Discussion

	Knowledge A Zoo Keeper will require a comprehensive understanding of:	Assessment method
1.	current legislation, including health and safety and animal welfare act, zoo licensing act, EU Zoos directive	MCT
2.	work place policies and procedures, such as working safely with higher risk animals and higher risk environments, working at height, working with chemicals, working with tools, manual handling, risk assessment, fire safety, relevant PPE, managing health and wellbeing	O
3.	the 5 welfare needs of an animals: <ol style="list-style-type: none"> a. its need for a suitable environment b. its need for a suitable diet (and water) c. its need to exhibit normal behaviour patterns d. any need to be housed with, or apart from, other animals in appropriate social groupings e. its need to be protected from fear, pain, suffering, injury and disease 	MCT
4.	key stakeholders for their area of work, including their organisation structure, organisation mission, regional, national and international associations as appropriate, e.g. BIAZA, EAZA, WAZA, AZA, ZAA	PD
5.	information needs of internal/external audiences, including what information is appropriate and the factors that need to be taken into consideration, such as communicating animal births/deaths to a range of audiences and methods of communication and the appropriate communication methods for specific audiences, i.e. internal/external, such as presentations, demonstrations, scientific publications, media releases, social media posts, staff meetings, reports	PD
6.	the principles of basic zoology including the classification of taxa, anatomy, physiology, genetics, adaptations, evolution, ecology, behavioural ecology	MCT
7.	the increasingly significant role zoos play globally in conserving species and their habitats, including the International Union for Conservation of Nature (IUCN) one plan conservation approach	PD
8.	the changing roles of zoos in relation to conservation, research, education, visitor experience, promotion of positive behaviour change in the public, welfare management and enclosure design	PD
9.	common ethical concerns of the public and the corresponding ethical position taken by their organisation including their organisations protocols	O

10	the assessment of conservation status of species and habitats including IUCN red listing, IUCN green listing, and others such as the Alliance for Zero Extinction, ZSL's Edge programme, Biodiversity Action Plan (BAPS)	MCT
11	the natural history of the animals in their care and how they are best managed and exhibited to suit their species-specific needs. This is to include their environmental parameters (e.g. temperature, humidity, pH and UV), behavioural needs including habitat type and feeding behaviour, their social needs (e.g. group dynamic) and psychological needs (e.g. quiet environments)	O
12	the principles of animal movement and transportation legislation, including handling, restraint, capture and monitoring of animals and the challenges around these such as safety concerns for higher risk and wild species	MCT
13	population management and its effectiveness including; determination of a range of wild species, same sex groups, breed and cull, and contraception, introduction, the importance of genetic diversity and the consequences of hybridisation and inbreeding e.g. seahorse breed and cull, new fish introduction into a tank	PD
14	means of identifying individual animals through transponders, photos, ear tags, leg bands, individual markings, sex determination etc e, g, elasmobranchs for sex determination, individual markings on some fish	MCT
15	nutritional requirements of a range of wild species across all life stages and how diets are safely stored, formulated, prepared, and delivered including weight management, supplementation and food hygiene e.g. artemia to fry (brine shrimp/mysis) to adult seahorses	O
16	welfare assessment using appropriate welfare assessment tools such as signs of ill health and injury, behaviour monitoring, body condition scoring, specimen collection, faecal scoring, food intake e.g. gill/skin scrapes from fish and the preparation/storage of the slides	PD
17	basic veterinary procedures, such as the storage and administration of veterinary medicine, wound management, minor procedures as appropriate	MCT
18	the principles of animal training, such as classical versus operant conditioning, cuing, bridging, reinforcing	MCT
19	how and why to record and retrieve information and write reports using a range of systems relevant to zoo keeping within their organisation, such as diaries, ZIMS, Tracks, PMX, Excel, following instruction to retrieve data or update information and following procedures designed to keep data secure	PD
20	the principles of enclosure/tank design including the needs of each stakeholder group (e.g. visitor needs: viewing windows, accessible paths, etc.), the needs of the animals (e.g. places to hide) (bio)hazards connected to the enclosure design, enclosure components and furnishings e.g. aquariums and keeper/aquarist access to the LSS	O
21	the key risk factors associated with zoonosis and common zoonotic diseases and their management e.g. fish TB	MCT

22	factors affecting zoo bio security for wild species under their care and appropriate control measures to maintain bio security e.g. net dips	O
23	organisational protocols for dealing with emergencies (e.g. animal escape, unintentional human-animal contact, fire, human medical emergency) and understand their role within this	PD
24	the principles of housekeeping including cleaning, enclosure/tank management, Life Support Systems maintenance, products used and their associated hazards, frequency of cleaning based on situation, species and individual considering factors such as scent marking or removal of body fluids e.g. fish safe cleaning products	O
25	basic horticultural principles in relation to wild animal collections and species, e.g. care of enclosure plants, knowledge of edible browse species, knowledge of toxic plants and their management e.g. using aquaponic systems to help filter the water	PD
26	strategies for compliant and sustainable waste management and recycling	O
27	the importance of zoo or aquarium research and the types of research undertaken in zoos/aquariums (e.g. behavioural observation, genetic, nutritional, records based)	PD
28	the principles of research design and data analysis in a zoo setting including hypothesis creation, ethical approval processes within their organisation, common behavioural observation sampling techniques and how to present findings appropriately e.g. from descriptive statistics, listing methods of dissemination of results etc.	MCT
	Skills (core): A Zoo Keeper will be able to:	Assessment Method
1	Work effectively in a safe and healthy working environment following current/relevant health and safety legislation and work place policies such as working safely with wild/higher risk animals and higher risk environments, working at height, working with chemicals, working with tools, manual handling, risk assessment, fire safety, relevant PPE	O
2	Demonstrate how the 5 welfare needs of an animal can be used as a basis to provide the animal with opportunities to display positive welfare, including providing a suitable environment and diet (including water), housing the animal in appropriate social groupings and protecting it from fear, pain, suffering, injury and disease and providing an environment where normal behaviour can be displayed	O
3	Prioritise more critical and less critical activities and tasks using scheduling techniques that enable them to meet deadlines and allow for unexpected tasks, such as an animal medical emergency, daily animal husbandry, visitor safety and staff absence	PD
4	Communicate information clearly and within a timely manner with internal audiences such as colleagues, vets, managers and contractors concisely, accurately and in ways that promote understanding – verbally as well as in writing (e.g. daily reports, diaries) adjusting and prioritising information and being mindful of the impact	PD

5	Communicate effectively with external audiences such as the scientific community, general public/ visitors and media in a range of contexts including presentations, public speaking, visitor engagement, conservation education activities, customer service and delivering keeper experiences in order to educate about animal life histories and conservation issues, promoting awareness of the role of zoos/aquariums in conservation and encouraging sustainable behaviour change	PD
6	Actively listen, process and prioritise information, confirm understanding and react according to level of risk e.g. lost child procedure, animal escape, instruction from senior staff	PD
7	Devise and deliver a talk/presentation using a range of appropriate resources such as audio/visual equipment, PowerPoint slides, physical props	PD
8	Deal appropriately with difficult issues (e.g. visitor/internal conflicts and complaints) following workplace policies and procedures	PD
9	Accurately record, retrieve and monitor information and write reports using a range of systems relevant to zoo/aquarium keeping within your organisation, such as diaries, ZIMS, Tracks, Excel following instruction to retrieve data or update information and follow workplace procedures designed to keep data secure	PD
10	Use information from reliable sources using scientific nomenclature of taxa for a variety of purposes such as gathering information to share with the public and/or science community, researching information to underpin enclosure/tank design and husbandry plans including use of recognised assessment tools to identify species or habitat conservation status	PD
11	Observe, describe and interpret animal behaviour (innate, learned, abnormal), including species specific behaviours for species in their care, taking response action where appropriate including reporting to the supervisor or recording in animal records system	O
12	Develop, implement and evaluate (including safety evaluation) appropriate sensory and cognitive enrichment in accordance with enclosure/tank design and species-specific needs e.g. simulating hunting behaviours in big cats, stingrays and sharks	O
13	Identify individual animals through transponders, photos, ear tags, leg bands, individual markings, sex determination	O
14	Create a plan using the principles of population management in line with the organisation collection plan, such as the introductory meeting of a species, taking into consideration individual suitability (e.g. health status, age, social hierarchy, reproductive status), practical set up, potential issues and solutions e.g. introducing a males and females for breeding or forming single sex groups/mixed species	PD
15	Interpret diet sheets and safely store, prepare and present diets in a manner which promotes species-specific natural behaviours, also considering individual needs (e.g. geriatric, disabled, etc.)	O
16	Evaluate diets and propose modifications e.g. to minimise the amount of uneaten food and contingent wastage, promote physical and psychological health and welfare meeting nutritional needs	O

17	Correctly follow procedures for waste management and disposal including hazardous materials, biosecurity risks, legally regulated materials	O
18	Identify which equipment, methods of approach, capture, handling, restraint and loading are best for specific situations and species, create plans for and make informed decisions to facilitate this e.g. fish species that are net sensitive or elasmobranchs that are trained to go in to a stretcher.	PD
19	Show confidence in assisting with the capture and restraint of wild and high-risk species	PD
20	Identify the most appropriate methods of successfully transporting animals, considering species, level of risk, duration, animal welfare considerations, health and safety, legislation e.g. maintaining the temperature of the water for an overnight transport	PD
21	Train animals using positive reinforcement-based techniques in various situations (e.g. target training with a single animal) and apply these techniques in the animal's routine, monitoring and recording the results and giving feedback to the responsible supervisor	O
22	Identify, assess severity of and report potential health issues in animals in a timely manner. Monitor changes in health of animals and report their findings to a supervisor or veterinarian e.g. signs of ill health or injury, behaviour monitoring, body condition scoring, faecal scoring, food intake	PD
23	Correctly collect, document and store suitable samples as part of veterinary health monitoring e.g. hair, faecal, urine, gill	PD
24	Administer treatment following instruction from a veterinarian/competent staff member (e.g. administration of medication to an individual/group, parasite treatments, nail/hoof trimming) e.g. salt treatment, Aquatet etc.	PD
25	Assess the strengths and weaknesses of different enclosure/tank designs from the point of view of each stakeholder group (e.g. animals, keepers, vet team, visitors, educators, researchers) and propose improvements, if required	O
26	Select optimal enclosure substrates and furnishings and maintain them within the enclosure/tank e.g. clean appropriately, monitor condition and replace as appropriate e.g. coral chip and a siphon schedule	O
27	Identify potential and existing physical and bio hazards within an enclosure and associated areas, responding and participating in alterations/solutions where possible, reporting more complex issues to the relevant staff, all within a timely manner	O
28	Use, maintain and store a range of tools and equipment correctly, including electrical tools, appropriate to the workplace	O
29	Monitor and take responsibility of the health and safety of the visitors and welfare of the animals in enhanced animal contact situations, especially with higher risk and wild species, such as visitor encounter, keeper for a day experiences, walkthrough enclosures, animal handling sessions, taking action when required to minimise risks and stress	O
30	Comply with and support other staff in complying with emergency protocols e.g. animal escape drills, fire etc.	PD

31	Carry out safe housekeeping regimes including the safe use and disposal of products used, cleaning of enclosures/tanks, public areas, Life Support Systems maintenance, and their associated hazards, frequency of cleaning based on situation, species and individual considering factors such as sent marking or removal of body fluids to required standard, according to species specific standard	O
32	Design and implement research projects; including a small number of variables or indicators, using tried and tested research methods e.g. single animal case studies of behaviour challenges	PD
33	Analyse results and summarise findings using reporting tools including descriptive statistics, listing methods of dissemination of results including where relevant research might be published and considering the implications of findings for practices within their organisation	PD
Behaviours:		
Safe Working		
1	Be safety conscious and maintain safe working practices, which must be adhered to at all times with constant situational awareness and adaptability to ensure safety of the animal(s), themselves and others, including proactively assessing risks and mitigating these immediately.	O
Work Ethic		
2	Have a strong work ethic and a willingness to learn. Be respectful, punctual, reliable, trustworthy and diligent and prepared to work irregular hours, in all weathers. Take a pride in their work, showing commitment and loyalty, whilst conducting themselves in a professional manner, both in terms of their presentation and conduct. Have a responsible attitude towards themselves, others and the animal(s) in their care, showing respect, empathy, patience and tolerance in all situations, including working with methods that reduce any risk of physical injury and emotional stress to animal(s), themselves or others.	PD
Professionalism		
3	Professional and ethical responsibilities and the values of their work place.	PD
4	An awareness of the limits of their own authority, expertise, training, competence and experience.	PD
5	Respect and empathy for animals.	O
6	Being aware of how to use social media responsibly	MCT
7	Be respectful of the legal duty of care under animal health and welfare legislation and codes of practice and other relevant legislation affecting the keeping of animals	O

	Teamwork:	
8	Have a positive approach to working within a team and have the ability to work both individually and as part of a team as required, understanding their role and changing priorities when the situation dictates to meet organisational objectives. Be, be willing to develop productive working relationships with colleagues and stakeholders.	PD
	Demonstrate integrity, by:	
9	respecting the values of the work place	O
	Demonstrate self-awareness, by:	
10	being open to new ideas, willing to develop skills and new ways of working and being committed to ongoing professional development	PD
11	knowing when to ask for advice or guidance when unsure and learning from these experiences. Self-reflection in taking responsibility for own actions and mistakes, reporting them immediately, and identifying lessons learnt	PD
	Demonstrate a positive attitude, by:	
12	using initiative and maximising productivity and efficiency	O
13	being flexible with respect to changing demands, priorities, schedules, working hours, weather conditions	PD
14	being aware of the surroundings and noticing and responding to problems that may adversely affect public perception (e.g. litter-picking)	O
15	being customer focused, polite and friendly	O