Institute for Apprenticeships & Technical Education

End-point assessment plan for Watchmaker apprenticeship standard

Apprenticeship standard reference number	Apprenticeship standard level	Integrated end-point assessment
ST0395	3	No

Contents

Introduction and overview

This document sets out the requirements for end-point assessment (EPA) for the watchmaker apprenticeship standard. End-point assessment organisations must follow this when designing and delivering their EPA.

Watchmaker apprentices, their employers and training providers should read this document.

An approved EPAO must conduct the EPA for this apprenticeship. Employers must select an approved EPAO from the Education and Skills Funding Agency's Register of end-point assessment organisations (RoEPAO).

Full time apprentices will typically spend 24 months on-programme (this means in training before the gateway) working towards competence as a watchmaker. All apprentices must spend at least 12 months on-programme. All apprentices must spend at least 20% of their on-programme time completing off-the-job training.

The EPA consists of 3 discrete assessment methods.

The grades available for each EPA method are:

Assessment method 1: Knowledge test

- Fail
- Pass
- Distinction

Assessment method 2**:** Practical assessment with questioning

- Fail
- Pass
- Distinction

Assessment method 3: Interview

- Fail
- Pass

The result from each EPA method is combined to decide the overall apprenticeship grade. The following grades are available for the apprenticeship:

- Fail
- Pass
- Distinction

EPA summary table

On-programme (typically 24 months)	Training to develop the knowledge, skills and behaviours (KSBs) of the occupational standard Training towards English and mathematics at Level 2[1], if required
End-point assessment gateway	The employer must be content the apprentice is working at or above the level of the occupational standard. The apprentice's employer must confirm that they think the apprentice: • is working at or above the occupational standard as a watchmaker • has the evidence required to pass the gateway and is ready to take the EPA Apprentices must have achieved English and mathematics at Level 2 An apprentice must submit all gateway evidence to the EPAO. The EPAO must review the evidence. When the EPAO confirms the gateway requirements have been met, the EPA period starts and typically takes 3 months to complete. The expectation is that the EPAO will do this as quickly as possible. For the knowledge test, practical assessment and interview, there are no specific requirements to submit supporting materials.
End-point assessment (which will typically take 3 months)	Grades available for each method: Knowledge test: • Fail • Pass • Distinction Practical assessment with questioning • Fail • Pass • Distinction Interview • Fail • Pass

[1] For those with an education, health and care plan or a legacy statement, the apprenticeship's English and mathematics minimum requirement is Entry Level 3. British Sign Language (BSL) qualifications are an alternative to English qualifications for those who have BSL as their primary language

	Performance in the EPA will determine the overall apprenticeship standard grade of: • Fail • Pass • Distinction
Professional Body Recognition	British Watch and Clock Makers' Guild - Attains Membership

Length of end-point assessment period

The EPA will be taken within the EPA period. The EPA period begins when the EPAO confirms the gateway requirements are met and is typically 3 months.

Order of end- point assessment methods

The assessment methods can be delivered in any order. The result of one assessment method does not have to be known before an apprentice starts the next one.

EPA 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.

The EPAO determines when all other gateway requirements have been met, and the EPA period will only commence once the EPAO has confirmed this.

In addition, the apprentice must have completed the following gateway requirements prior to beginning EPA:

- achieved English and mathematics at Level 2.

End-point assessment methods

Assessment method 1: Knowledge test

(This assessment method has 1 component.)

Overview

A knowledge test is a controlled assessment which consists of a series of questions in which apprentices are asked to provide a response.

The rationale for this assessment method is:

- it allows for the efficient testing of knowledge
- it allows for flexibility in terms of when, where and how it is taken
- there are core knowledge areas in the occupation which a watchmaker needs to be able to recall from memory.

Delivery

The knowledge test can be:

- paper based
- computer based

It will consist of 30 questions and include multiple choice and short response questions. Multiple-choice questions will have four options, including one correct answer. Short response questions will have specific answers. The test will include short questions, calculations and diagrams requiring the naming of components and or stating their function.

The questions must be varied, to avoid the knowledge test becoming too predictable, yet allow assessment of the relevant KSBs.

Knowledge test administration

Apprentices must have 60 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 must be the independent assessor, or another independent person approved by the EPAO with experience in invigilation or specialised software, if the test can be taken on-line. 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 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 The EPAO is responsible for verifying the validity of the identity of the person taking the test and the suitability of the venue for 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.

Correct answers must be awarded 1 mark. Any incorrect or missing answers must be assigned zero marks.

Question and resource development

Questions must be written by EPAOs and must be relevant to the occupation and demonstrate how to assess the KSBs shown in the mapping. It is recommended that this be done in consultation with occupationally competent technical experts such as: employers, professional bodies and qualified tradespeople who have experience of working within the current sector climate. EPAOs should also maintain the security and confidentiality of their questions when consulting. The questions must be unpredictable. A question bank of sufficient size will support this. The test specification and questions must be reviewed at least once a year to ensure they remain fit for purpose.

EPAOs will develop purpose-built question banks and ensure that appropriate quality assurance procedures are in place, for example, considering previous item performance data, item analysis, standardisation, training and moderation. EPAOs will ensure that questions are refined and developed to a high standard.

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

EPAOs must produce the following materials to support the knowledge test:

- a question bank
- test specification
- sample tests and mark schemes
- live tests and mark schemes
- analysis reports which show areas of weakness for completed tests and an invigilation policy
- moderation and standardisation materials
- guidance materials
- EPA guidance for the apprentice and employer

Assessment method 2: Practical assessment with questioning

Overview

Apprentices must be observed by an independent assessor completing a practical test which is split into 2 tasks in which they will demonstrate the KSBs assigned to this assessment method. The end-point assessment organisation will arrange for the test to take place, in consultation with the employer

Rationale

The rationale for this assessment method is:

- it allows for a varied range of tasks to be observed, that could not be guaranteed to be achieved through a single observation in the workplace
- this is a practical role, best demonstrated through completing tasks in a realistic work setting
- it allows for consistency of activities to be completed and efficiency in scheduling
- it standardises the assessment across all watchmaking apprentices and a controlled environment ensures that all apprentices are assessed against the same criteria in a consistent and fair setting
- it is a holistic assessment method

Delivery

Apprentices must be observed by an independent assessor completing tasks set by the EPAO and questioned in relation to the tasks' underpinning knowledge, skills and/or behaviours where an opportunity to observe them has not occurred.

One independent assessor may observe up to a maximum of 4 apprentices at any one time. This is justified as this is a practical profession and each task will result in a serviced item which means constant observation of each candidate is not necessary to determine competence. In addition, it allows for cost effective delivery of the test. Apprentices will be assessed against the KSBs assigned to this assessment method – as shown in the mapping of KSBs.

Practical test specifications must be of equal challenge, capable of being completed by a competent watchmaker.

The EPAO must arrange for the practical test to take place, in consultation with the apprentice's employer.

The practical test will take 10.5 hours. It will be split into two discrete sections (tasks) held over a maximum of 2 working days. The tasks will have the following timings:

Task 1: Servicing and correcting faults in an automatic watch with introduced faults. (servicing the movement and refinishing the watch case and bracelet) (6.75 hrs)

Task 2: Servicing and correcting faults in a quartz watch with introduced faults. (servicing the movement) (3.75 hrs)

The length of a working day is typically considered to be 7.5 hours.

There may be breaks during the practical test to allow the apprentice to move from one location to another and for meal/comfort breaks. During these breaks, the clock must be

stopped and then restarted to ensure that the practical test assessment duration is not reduced.

The independent assessor has the discretion to increase the time of each task within the practical test by up to 10% per task to allow the apprentice to complete the final part of the task.

Once a task has commenced, it must be completed on the same day to ensure security of the assessment.

In advance of the practical test, apprentices must be provided with information on the format of the test, including timescales. This information is exclusive of the practical test assessment time.

The task will holistically assess the skills, knowledge and behaviours described in the occupational standard and in the mapping of the knowledge, skills and behaviours in this document.

The practical tests will feature the following elements:

- use of watchmaking tools and equipment
- procedures for testing watches and watch movements
- identification and correction of faults in quartz and mechanical watches
- specifying, and documenting replacement components
- Specifying and documenting lubricants used for different applications
- disassembly and reassembly of quartz and mechanical watches
- preparation of quartz and mechanical watch components for reassembly
- the refinishing of watch case components
- independent and effective work, and time management

There will be specifications for each task provided by the EPAO to meet the mapped KSBs.

As the apprentice, their employer and training provider will be unaware of the exact nature of the faults introduced into the quartz and automatic winding watches, it is vital that apprentices are proficient in diagnostic procedures and the correction of a wide range of faults in watches. The EPAO will prepare the watches for servicing by introducing faults and verifying there are no pre-existing defects present in the watches.

In all of the above tasks, the EPAO must ensure that an apprentice cannot gain advantage from seeing what the other apprentices being assessed are doing.

Questioning

After completion of both tasks in the practical assessment, the independent assessor must ask at least 5 questions. The independent assessor will question apprentices individually. Where more than one apprentice is undertaking the practical assessment on the same day, apprentices who are waiting to answer questions with the independent assessor must be supervised to ensure they do not continue practical assessment activities and cannot hear the apprentice being questioned.

The questions may be a combination of those from the EPAO question bank and those generated by the independent assessor. The purpose of the independent assessor's questions will be to test:

- the rationale for the replacement of components to correct faults during the practical test
- the use of surface treatments on surfaces to be lubricated in the practical test
- the selection and application of lubricants during the practical test

The independent assessor can ask questions about KSBs that were not observed in the practical assessment or to clarify answers given by the apprentice.

The questioning will last for 15 minutes. This time is in addition to the time to complete the two tasks in the practical assessment. Evidence from the practical assessment and questioning must be assessed holistically using the grading criteria for this assessment method.

The independent assessor conducts and assesses the practical assessment. They must record the KSBs observed, KSBs demonstrated in answers to questions and the grade achieved. The apprentice's answers to questions must be recorded.

Independent assessors will make all grading decisions.

EPAOs must ensure that apprentices have a different range of introduced faults and a set of questions in the case of re-sits or re-takes.

Assessment location

The practical assessment can take place in:

- employer's premises
- a suitable venue selected by the EPAO, for example a training provider's premises or another employer's premises.

Equipment and resources needed for the practical assessment must be provided by the EPAO who can liaise with the employer to provide these.

Questioning that occurs after the practical assessment should take place in a quiet room, free from distractions and influence.

Question and resource development

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

- outline of the assessment method's requirements
- proforma for the apprentice to record replacement components and their use of lubricants
- marking materials
- question bank
- resource requirements
- a range of faults to introduce into the watches
- training materials
- grading guidance
- EPA guidance for the apprentice and employer
- Moderation and standardisation materials

Assessment method 3: Interview

(This assessment method has 1 component.)

Overview

This assessment will take the form of an interview, 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 rationale for this assessment method is:

- it allows the apprentice to be assessed against KSBs that may not occur naturally on a daily basis, would take too long to observe or do not lend themselves to direct observation.
- it enables the apprentice to demonstrate the application of skills and behaviours as well as knowledge.
- it allows for testing of responses where there are several potential answers that could not be tested through the knowledge test
- it assesses an apprentice's depth of knowledge
- it is cost effective, as it makes use of the employer's premises, or can be conducted remotely, and does not require additional resources.

Delivery

- The independent assessor will conduct and assess the interview.

The interview must last for 40 minutes. The independent assessor has the discretion to increase the time of the interview by up to 10% to allow the apprentice to complete their last answer.

During the interview, the independent assessor must ask a minimum of 8 questions to enable the apprentice to evidence the mapped KSBs. Independent assessors may ask follow-up questions where clarification is required.

During this method, the independent assessor must use the question bank as a source for questioning using their professional judgement to tailor those questions appropriately. Independent assessors are responsible for generating suitable follow-up questions in line with the EPAO's training and standardisation process. These follow-up questions are allowed to seek clarification from the apprentice and to make a judgement against the grading descriptors and do not count towards the minimum question requirements. The EPAO question bank should consider the level of English that the apprentice is working at and pitch questions using appropriate language to ensure inclusivity. Apprentices are expected to understand and use relevant occupational language.

The interview will be conducted as set out here:

The independent assessor must use the assessment tools and procedures that are set by the EPAO to record the interview in terms of questions asked and the responses to these questions.

The independent assessor will make all grading decisions.

Assessment location

The interview should take place in a quiet room, free from distractions and influence**.** The interview can take place in any of the following:

- employer's premises
- a suitable venue selected by the EPAO (e.g. a training provider's premises)
- remotely via video conferencing

Video conferencing can be used to conduct the interview, 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.

Question and resource development

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.

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

- assessment recording documentation
- guidance for apprentices and employers
- question bank
- training materials
- administration materials
- moderation and standardisation materials
- guidance materials
- grading guidance
- EPA guidance for the apprentice and employer

It is recommended that questions are developed in consultation with employers and occupational technical experts of this occupation. EPAOs must maintain the security and confidentiality of their questions when consulting employers.

Independent assessors must be developed and trained by the EPAO in the conduct of oral questioning and reaching consistent judgement.

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.

Weighting of assessment methods

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

Grading

Assessment method 1: Knowledge Test

KSBs	Fail	Pass	Distinction
K1, K2, K6, K7, K10, K13, K16, K17	0-17 marks	18-23 marks	24-30 marks

Assessment method 2: Practical Assessment with questioning

KSBs	Fail	Pass All of the following must be achieved to gain a pass:	Distinction In addition to the pass criteria, all of the following criteria must be achieved to gain a distinction:
S1 **B1**	Does not meet the pass criteria	**Working safely:** Demonstrates compliance with health, safety and environmental legislation, promoting a positive safety culture which ensures work is carried out without placing themselves or others at risk. (S1, B1)	
S2 S3 S4 **K5** **B2, B3, B4, B5**		**The watch servicing environment:** Maintains a tidy working environment by replacing tools after use. (B2) Selects and uses tools and equipment for servicing watches safely and in accordance with manufacturer's technical information and industry practice (S2, S4)	

		Demonstrates the correct use of tools and equipment used for watch servicing according to their construction and operational principles. Routinely maintains hand tools. (K5, S3) Completes routine work with minimal supervision. (B5) Demonstrates an approach to routine work practices which reflects attention to detail and accuracy during servicing and record keeping and completes work to meet deadlines. (B3, B4)	
K8 K9 **S5 S6 S7 S8 S9**		**Servicing watch cases and bracelets:** Appraises the condition of the watch case and bracelet and determines a suitable approach for opening the type of watch case without causing damage (S5). Specifies replacement components for the watch case and bracelets / straps (S6). Demonstrates procedures for servicing and refinishing of watch cases and bracelets according to industry practice. (K8, S7) Demonstrates reassembling watch case and/or bracelet, refitting movement and resealing watch case. (S8) Demonstrates the use of test equipment to determine the water resistance of the watch. (K9, S9)	Demonstrates procedures for servicing and refinishing of watch cases and bracelets which restore them to their original condition. (K8, S7)

K11 K12 S10 S11, S12, S13 S14		**Servicing Movements (Quartz):** Applies procedures for using test equipment and observation to identify faults in the watch movement, decides the approach to correct faults and specifies any replacement components required to service the watch movement (K11, S10, S12) Dismantles and cleans the movement, ensuring all components are in a suitable condition for re-assembly. (K12i, S11, S13) Re-assembles and applies oils and greases specified by the manufacturer to lubricate the watch components (K12ii, S14)	Justifies their action taken to identify and correct operational faults and evaluates the benefits of replacing components when servicing the watch movement (K11, S10, S12) Justifies their selection and application of lubricant for specific watch components. (K12ii, S14)

K14 K15 **S15, S16, S17, S18 S19, S20**		**Servicing movements, mechanical, automatic:** Applies procedures for using test equipment and observation to identify and decide the approach to correct operational faults in mechanical watch movements and specifies any replacement components required to service the watch movement. (K14, S15, S17) Dismantles and cleans the movement in accordance with industry practice prior to re-assembly. (K15i, S16) Checks all components are in a suitable condition for re-assembly and reassembles, lubricates and adjusts the watch movements in accordance with manufacturer's technical information and industry practice. (K15ii, S18, S19) Services watch movements to agreed timescales. (S20)	Evaluates their requirements to service the movement and justifies their course of action. (K14, S15, S17) Evaluates their work to quality assure against manufacturer's technical information and industry practice. (K15ii, S18, S19, S20)

Assessment method 3: Interview

Core KSBs	Fail	Pass All of the following must be achieved to gain a pass:
K3 K4 K18 K19 K20 **S21** **B6 B7 B9 B10**	Does not meet the pass criteria	Identifies ethical issues in watchmaking and explains the importance of safe disposal of all waste materials and how watchmakers can prioritise an ethical and environmentally sustainable approach to their work. (K3, K4, B7)
		Describes roles within the watch servicing industry and associated trades and how they maintain knowledge of developments within the industry. (K18, B10)
		Explains the historical background of time keeping. (K19)
		Describes the opportunities information technology brings to the watch servicing industry and how information technology can be used as an aid for self-learning, record keeping and continuous development. (K20, S21, B9)
		Explains how they communicate with and listen to colleagues, clients and other stakeholders, respecting differing views and adapting their communication style when needed (B6, B8)

Overall EPA grading

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

The final grade will be determined by collective performance in the three assessment methods in the EPA, calculated using the table below. Each element is separately graded according to the grading descriptors.

To achieve a distinction, the apprentice must gain a distinction in the practical test, as well as at least a distinction in one other method and a pass in the other method.

Assessment method 1 - Knowledge test	Assessment method 2 - Practical assessment with questioning	Assessment method 3 – Interview	Overall grading
Fail	Any grade	Any grade	Fail
Any grade	Fail	Any grade	Fail
Any grade	Any grade	Fail	Fail
Pass	Pass	Pass	Pass
Distinction	Pass	Pass	Pass
Pass	Distinction	Pass	Pass
Distinction	Distinction	Pass	Distinction

Re-sits and re-takes

Apprentices who fail one or more assessment method/s will be offered the opportunity to take a re-sit or a re-take at the employer's discretion. The apprentice's employer will need to agree that either a re-sit or re-take is an appropriate course of action.

A re-sit does not require further learning, whereas a re-take does.

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

Apprentices should have a supportive action plan to prepare for the re-sit or a re-take.

The timescales for a re-sit/re-take are agreed between the employer and EPAO. A re-sit is typically taken within 3 months of the EPA outcome notification. The timescale for a re-take is dependent on how much re-training is required and is typically taken within 6 months of the EPA outcome notification.

All assessment methods must be taken within a 6-month period, otherwise the entire EPA will need to be re-sat/re-taken.

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

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.

Roles and responsibilities

Role	Responsibility
Apprentice	As a minimum, apprentices should: • participate in and complete on-programme training to meet the KSBs as outlined in the occupational standard for a minimum of 12 months • undertake 20% off-the-job training as arranged by the employer and the training provider • understand the purpose and importance of EPA undertake the EPA including meeting all gateway requirements
Employer	As a minimum, employers should: • select the EPAO and training provider • work with the training provider (where applicable) to support the apprentice in the workplace and to provide the opportunities for the apprentice to develop the KSBs • arrange and support a minimum of 20% off-the-job training to be undertaken by the apprentice • decide when the apprentice is working at or above the occupational standard and so is ready for EPA • ensure that all supporting evidence required at the gateway is submitted in accordance with this EPA plan • remain independent from the delivery of the EPA • confirm arrangements with the EPAO for the EPA (who, when, where) in a timely manner (including providing access to any employer-specific documentation as required, for example company policies) • ensure that the EPA is scheduled with the EPAO for a date and time which allow appropriate opportunity for the KSBs to be met • ensure the apprentice is well prepared for the EPA • ensure the apprentice is given sufficient time away from regular duties to prepare for and complete all post-gateway elements of the EPA, and that any required supervision during this time (as stated within this EPA plan) is in place • where the apprentice is assessed in the workplace, ensure that the apprentice has access to the resources used on a daily basis

EPAO	As a minimum, EPAOs should: • conform to the requirements of this EPA plan and deliver its requirements in a timely manner • conform to the requirements of the Register of End-Point Assessment Organisations (RoEPAO) • conform to the requirements of the external quality assurance provider (EQAP) for this apprenticeship standard • understand the occupational standard • make all necessary contractual arrangements, including agreeing the price of the EPA • develop and produce assessment materials including specifications and marking materials (for example mark schemes, practice materials, training material) • appoint suitably qualified and competent independent assessors • appoint administrators (and invigilators where required) to administer the EPA as appropriate • provide training for independent assessors in terms of good assessment practice, operating the assessment tools and grading • provide adequate information, advice and guidance documentation to enable apprentices, employers and training providers to prepare for the EPA • arrange for the EPA to take place, in consultation with the employer • where the apprentice is not assessed in the workplace, ensure that the apprentice has access to the required resources and liaise with the employer to agree this if necessary • develop and provide appropriate assessment recording documentation to ensure a clear and auditable process is in place for providing assessment decisions and feedback to all relevant stakeholders • have no direct connection with the apprentice, their employer or training provider. In all instances, including when the EPAO is the training provider (i.e. HEI), there must be no conflict of interest • have policies and procedures for internal quality assurance (IQA), and maintain records of regular and robust IQA activity and moderation for external quality assurance (EQA) purposes • deliver induction training for independent assessors, and for invigilators and/or markers (where used) • undertake standardisation activity on this apprenticeship standard for all independent assessors before they conduct an EPA for the first

	time, if the EPA is updated and periodically as appropriate (a minimum of annually) • manage invigilation of apprentices in order to maintain security of the assessment in line with the EPAO's malpractice policy • verify the identity of the apprentice being assessed • use language in the development and delivery of the EPA that is appropriate to the level of the occupational standard • provide details of the independent assessor's name and contact details to the employer • have and apply appropriately an EPA appeals process • request certification via the Apprenticeship Service upon successful achievement of the EPA
Independent assessor	As a minimum, independent assessors should: • have the competence to assess the apprentice at this level and hold any required qualifications and experience in line with the requirements of the independent assessor as detailed in the IQA section of this EPA plan • understand the occupational standard and the requirements of this EPA • have, maintain and be able to evidence up-to-date knowledge and expertise of the subject matter • deliver the end-point assessment in-line with the EPA plan • comply with the IQA requirements of the EPAO • have no direct connection or conflict of interest with the apprentice, their employer or training provider; in all instances, including when the EPAO is the training provider (i.e. HEI) • attend induction training • attend standardisation events when they begin working for the EPAO, before they conduct an EPA for the first time and a minimum of annually on this apprenticeship standard • assess each assessment method, as determined by the EPA plan, and without extending the EPA unnecessarily • assess against the KSBs assigned to each assessment method, as shown in the mapping of assessment methods and as determined by the EPAO, and without extending the EPA unnecessarily • make all grading decisions • record and report all assessment outcome decisions, for each apprentice, following instructions and using

	assessment recording documentation provided by the EPAO, in a timely manner • use language in the development and delivery of the EPA that is appropriate to the level of the occupational standard
Training provider	As a minimum, training providers should: • work with the employer and support the apprentice during the off-the-job training to provide the opportunities to develop the knowledge, skills and behaviours as listed in the occupational standard • conduct training covering any knowledge, skill or behaviour requirement agreed as part of the Commitment Statement (often known as the Individual Learning Plan). • monitor the apprentice's progress during any training provider led on-programme learning • advise the employer, upon request, on the apprentice's readiness for EPA • remain independent from delivery of the EPA. Where the training provider is the EPA (i.e. a HEI) there must be procedures in place to mitigate against any conflict of interest
Marker	As a minimum, the marker should: • attend induction training • have no direct connection or conflict of interest with the apprentice, their employer or training provider in all instances including when the EPAO is the training provider (i.e. HEI) • mark test answers accurately according to the EPAO's mark scheme and procedures
Invigilators	As a minimum, invigilators should: • attend induction training as directed by the EPAO • have no direct connection or conflict of interest with the apprentice, their employer or training provider; in all instances, including when the EPAO is the training provider (i.e. HEI) • invigilate and supervise apprentices during tests and in breaks during assessment methods to prevent malpractice in accordance with the EPAO's invigilation procedures

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:
    - Assessors must have 5 years' experience working in the watch servicing industry.
- appoint independent assessors who are competent to deliver the end-point assessment
- 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
- ensure independent assessors attend standardisation events on an ongoing basis and at least once per year.

Value for money

Value for money of the EPA will be aided by using at least some of the following practice:

- online assessment of the knowledge test
- the option of using an employer's premises
- assessing multiple apprentices simultaneously during the practical test

Professional body recognition

Professional Body : British Watch and Clock Makers' Guild - Attains Membership

Mapping of knowledge, skills and behaviours (KSBs)

Assessment method 1: Knowledge test

Knowledge
K1: Health and safety legislation relating to common hazards within the working environment for watch servicing (Health and Safety at Work Act 1974, COSHH, PPE).
K2: The importance of risk analysis to ensure the safety of self and others when using tools, equipment and materials for watch servicing.
K6: Different types of quartz and mechanical watches, their basic function and construction.
K7: The construction of watch cases, bracelets and straps.
K10: The construction and operational principles of quartz watch movements and their components.
K13: The construction and operational principles of mechanical watch movements and their components.
K16: The specification and estimation of the cost of replacement components for quartz and mechanical watch movements and their cases.
K17: Manufacturer's technical information and its use.

Assessment method 2: Practical assessment with questioning

Knowledge
K5: Construction, operational principles and maintenance of tools and equipment required for watch servicing. (hand tools required for watch servicing, test equipment and machines for case refinishing).
K8: Procedures for servicing and refinishing watch cases and bracelets.
K9: Procedures for resealing and water resistance testing of watch cases.
K11: Procedures for using test equipment and observations to identify and correct operational faults in quartz watch movements.
K12i: Procedures for servicing quartz watch movements (disassembly, cleaning, reassembly)
K12ii: Procedures for servicing quartz watch movements (lubrication)
K14: Procedures for using test equipment and observations to identify and correct operational faults in mechanical watch movements.
K15i: Procedures for servicing mechanical watch movements (disassembly, cleaning)

K15ii: Procedures for servicing mechanical watch movements (reassembly, lubrication and adjustment).

Skills
S1: Complies with health, safety and environmental legislation (Health and Safety at Work Act 1974, COSSH, PPE) relating to common hazards within the working environment for watch servicing.
S2: Uses equipment safely in accordance with manufacturer's technical information and industry practice.
S3: Maintains tools in correct working order according to industry practice.
S4: Selects and uses appropriate tools in the servicing and repair of watches.
S5: Determines approach to open and service the watch case and removes the watch movement.
S6: Specifies replacement components required for servicing watch cases and bracelets/straps.
S7: Ensures all watch case and bracelet/strap components are in a suitable condition for re-assembly (includes refinishing where necessary).
S8: Reassembles watch cases and bracelets, refits movements and reseals watch cases.
S9: Uses test equipment to determine the water resistance of the watch (wet and dry testing, condensation test).
S10: Uses suitable test procedures and observations to determine the approach for servicing quartz watch movements.
S11: Dismantles quartz watch movements in accordance with industry practice.
S12: Specifies replacement components required for the servicing of quartz watch movements.
S13: Ensures all components for quartz movements are in a suitable condition for re-assembly.
S14: Reassembles and lubricates quartz watch movements in accordance with manufacturer's technical information and industry practice.
S15: Uses suitable testing procedures and observations to determine the approach for servicing mechanical watch movements.
S16: Dismantles mechanical watch movements in accordance with industry practice.
S17: Specifies replacement components required for the servicing of mechanical watch movements.
S18: Ensures all components for mechanical movements are in a suitable condition for re-assembly.
S19: Reassembles, lubricates and adjusts mechanical watch movements in accordance with manufacturer’s technical information and industry practice.
S20: Services watches within agreed commercial time scales.

Behaviours

B1: Promotes a positive safety culture; ensures work is carried out in a safe way that does not put themselves or others at risk.
B2: Maintains a tidy working environment and replaces equipment after use.
B3: Adheres to required work practices and completes work to meet deadlines.
B4: Shows attention to detail and accuracy during servicing and record keeping.
B5: Demonstrates a responsibility to complete routine work with minimal supervision.

Assessment method 3: Interview

Knowledge
K3: The importance of safe disposal of all waste materials.
K4: Ethical issues in watchmaking (counterfeit watches (fake and replica), watch customization, use of generic parts, the availability of watch parts to watchmakers).
K18: The watch servicing industry and associated trades (sequential servicing, watch technician, material dealer, dial restoration, watch restoration, case polishing and refurbishment, making watches, brands, independents).
K19: The history and development of time keeping (background to timekeeping, developments in quartz and mechanical watches, alternative escapements, older watches).
K20: The use of Information technology for record-keeping, self-learning and continuous development.

Skills
S21: Uses information technology for record-keeping, self-learning and continuous development.

Behaviours
B6: Listens to others and respects alternative views and opinions.
B7: Prioritises an ethical approach and environmental sustainability in watch servicing.
B8: Varies communication style appropriately during discussions and explanations with colleagues, clients and others.
B9: Recognises the opportunities from the use of information technology in watch servicing.
B10: Keeps abreast of developments in the watch servicing industry.