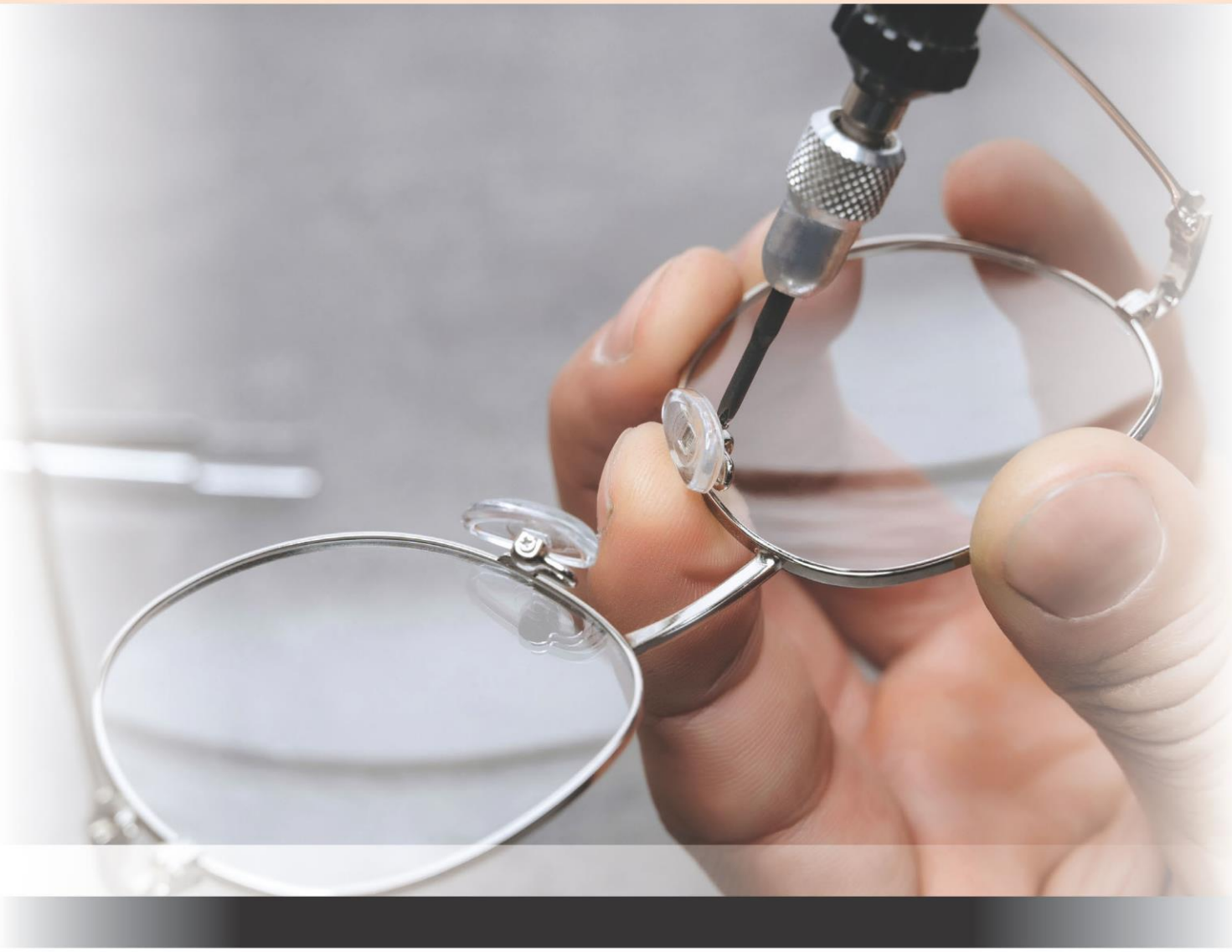
Highfield Level 3 End-point Assessment for ST0383 Spectacle Technician

End-Point Assessment Kit



Highfield Level 3 End-Point Assessment for Spectacle Technician

EPA Kit

Contents

Please click on the headings below to navigate to the associated section of the EPA Kit.

How to use this EPA Kit

Welcome to the Highfield End-Point Assessment Kit for the Spectacle Technician apprenticeship standard.

Highfield is an independent end-point assessment organisation that has been approved to offer and carry out the independent end-point assessments for the Level 3 Spectacle Technician apprenticeship standard. Highfield internally quality assures all end-point assessments in accordance with its IQA process, and additionally all end-point assessments are externally quality assured by the relevant EQA organisation.

The EPA Kit is designed to outline all you need to know about the end-point assessments for this standard and will also provide an overview of the on-programme delivery requirements. In addition, advice and guidance for trainers on how to prepare apprentices for the end-point assessment is included. The approaches suggested are not the only way in which an apprentice may be prepared for their assessments, but trainers may find them helpful as a starting point.

Key facts

Apprenticeship standard:	Spectacle Technician
Level:	3
On-programme duration:	Typically 18 months
End-point assessment window:	Typically 3 months
Grading:	Pass/merit/distinction
End-point assessment methods:	Multiple-choice test
	Practical tasks with questions
	Interview underpinned by a portfolio of evidence

In this kit, you will find:

- an overview of the standard and any on-programme requirements
- a section focused on delivery, where the standard and assessment criteria are presented in a suggested format that is suitable for delivery
- guidance on how to prepare the apprentice for gateway
- detailed information on which part of the standard is assessed by which assessment method
- suggestions on how to prepare the apprentice for each part of the end-point assessment
- a section focused on the end-point assessment method where the assessment criteria are presented in a format suitable for carrying out 'mock' assessments

Introduction

Standard overview

A spectacle technician's main purpose is to manufacture, repair and quality assure optical devices and spectacles to the prescription provided by optometrists. They use clinical prescriptions to produce high quality and accurate products while also critically assessing for errors and omissions. In a spectacle technician's daily work, they will interact with colleagues in the retail or manufacturing operation where they work, as well as with external suppliers and customers.

Key responsibilities are likely to include accurately interpreting components, using an extensive range of technical equipment, independently resolving quality problems, and maintaining both equipment and a safe working environment.

Typical job titles may include optical technician, glazing technician, spectacle maker, lens manufacturing technician and optical laboratory technician.

On-programme requirements

Although learning, development and on-programme assessment is flexible, and the process is not prescribed, the following is the recommended baseline expectation for an apprentice to achieve full competence in line with the spectacle technician apprenticeship standard.

The on-programme assessment approach will be agreed between the training provider and employer. The assessment will give an ongoing indication of an apprentice's performance against the final outcomes defined in the standard. The training provider will need to prepare the apprentice for the end-point assessment, including preparation for the interview and collation of the portfolio of evidence (such as a provision of recordings of professional discussions or workplace evidence).

The training programme leading to end-point assessment should cover the breadth and depth of the standard using suggested on-programme assessment methods that integrate the knowledge, skills and behaviour components, and which ensure that the apprentice is sufficiently prepared to undertake the end-point assessment. Training, development and ongoing review activities should include:

- achievement of level 2 English and maths
- any qualifications specified by the employer
- completion of a portfolio through which the apprentice gathers evidence of their progress
- study days and training courses
- mentoring/buddy support
- regular performance reviews undertaken by the employer

- structured one-to-one reviews of their progress with their employer and/or training provider

Throughout the period of learning and development, and at least every 2 months, the apprentice should meet with the on-programme assessor to record their progress against the standard. At these reviews, evidence should be discussed and recorded by the apprentice. The maintenance of an on-programme record is important to support the apprentice, on-programme assessor and employer in monitoring the progress of learning and development. This will determine when the apprentice has achieved full competence in their job role and is therefore ready for end-point assessment.

Portfolio of evidence

The apprentice must compile a portfolio of evidence during their time on-programme that is mapped against the knowledge, skills and behaviours assessed in the interview underpinned by a portfolio of evidence.

It will typically contain **8 discrete pieces of evidence**. Evidence may be used to demonstrate more than **1 knowledge, skill or behaviour** as a qualitative approach is suggested as opposed to a quantitative approach.

Evidence sources for the portfolio may include:

- workplace documentation and records
- workplace policies and procedures
- witness statements
- annotated photographs
- video clips with a maximum total duration of 10 minutes and where the apprentice must be in view and identifiable

This is not a definitive list and other evidence sources are possible. Given the breadth of context and roles in which this occupation works, the apprentice will select the most appropriate evidence based on the context of their practice against the relevant knowledge, skills and behaviours.

The portfolio should not include reflective accounts or any methods of self-assessment. Any employer contributions should focus on direct observation of performance (for example, witness statements) rather than opinions.

The portfolio must be accompanied by a portfolio matrix. This can be downloaded from our website. The portfolio matrix must be fully completed including a declaration by the employer and the apprentice to confirm that the portfolio is valid and attributable to the apprentice.

The portfolio of evidence must be submitted to Highfield at gateway. It is not directly assessed but underpins the interview.

Use of artificial intelligence (AI) in the EPA

Where AI has been used as part of the apprentice's day-to-day work and forms part of a project report, presentation or artefact, it should be referenced as such within the work. AI must not be used to produce the report or portfolio.

Where AI has been used as part of a portfolio that underpins an interview or professional discussion or any other assessment method, it should be fully referenced within the portfolio.

Readiness for end-point assessment

For an apprentice to be ready for the end-point assessments:

- the apprentice must have achieved **level 2** English and maths.
- the apprentice must have gathered a **portfolio of evidence** against the required elements to be put forward to be used as the basis for the interview.
- the apprentice must have gathered their organisation's policies and procedures as requested by Highfield. For guidance, a list of examples has been provided below.
    - Standard operating procedures
    - Data protection and cyber security
    - Management of stock
    - Working sustainably
    - Quality assurance processes

  This list is not definitive. The policies and procedures may already be included as part of the portfolio of evidence.
- the line manager (employer) must be confident that the apprentice has developed all the knowledge, skills and behaviours defined in the apprenticeship standard and that the apprentice is competent in performing their role. To ensure this, the apprentice must attend a formal meeting with their employer to complete the Gateway Readiness Report.
- the apprentice and the employer should then engage with Highfield to agree a plan and schedule for each assessment activity to ensure all components can be completed within a 3-month end-point assessment window. Further information about the gateway process is covered later in this kit.

If you have any queries regarding the gateway requirements, please contact your EPA Customer Engagement Manager at Highfield Assessment.

Order of end-point assessments

There is no stipulated order of assessment methods. This will be discussed with the apprentice, training provider and/or employer with our scheduling team when scheduling the assessments, to ensure that the learner is provided with the best opportunity to attempt the assessment.

Click here to return to contents

The Highfield approach

This section describes the approach Highfield has adopted in the development of this end-point assessment in terms of its interpretation of the requirements of the end-point assessment plan and other relevant documents.

Documents used in developing this end-point assessment

Standard (2024)

https://www.instituteforapprenticeships.org/apprenticeship-standards/spectacle-technician-v1-1

End-point assessment plan (ST0383/v1.1)

https://www.instituteforapprenticeships.org/apprenticeship-standards/spectacle-technician-v1-1

Specific considerations

Highfield's approach does not deviate from the assessment plan.

Click here to return to contents

Gateway

How to prepare for gateway

After apprentices have completed their on-programme learning, they should be ready to pass through 'gateway' to their end-point assessment.

Gateway is a meeting that should be arranged between the apprentice, their employer and training provider to determine that the apprentice is ready to undertake their end-point assessment. The apprentice should prepare for this meeting by bringing along work-based evidence, including:

- customer feedback
- recordings
- manager statements
- witness statements

As well as evidence from others, such as:

- mid and end-of-year performance reviews
- feedback to show how they have met the apprenticeship standards while on-programme

In advance of gateway, apprentices will need to have:

- achieved level 2 English
- achieved level 2 maths
- submitted a suitable portfolio of evidence to be used as the basis for the interview (see the portfolio matrix)
- submitted their organisation's policies and procedures as requested by Highfield

Therefore, apprentices should be advised by employers and providers to gather this evidence and undertake these qualifications during their on-programme training. It is recommended that employers and providers complete regular checks and reviews of this evidence to ensure the apprentice is progressing and achieving the standards before the formal gateway meeting is arranged.

The gateway meeting

The gateway meeting should last around an hour and must be completed on or after the apprenticeship on-programme end date. It should be attended by the apprentice and the relevant people who have worked with the apprentice on-programme, such as the line manager/employer or mentor, the on-programme trainer/training provider and/or a senior manager (as appropriate to the business).

During the meeting, the apprentice, employer and training provider will discuss the apprentice's progress to date and confirm if the apprentice has met the full criteria of the apprenticeship standard during their on-programme training. The **Gateway Readiness Report** should be used to log the outcomes of the meeting and agreed by all 3 parties. This report is available to download from the Highfield Assessment website.

The report should then be submitted to Highfield to initiate the end-point assessment process. If you require any support completing the Gateway Readiness Report, please contact your EPA Customer Engagement Manager at Highfield Assessment.

Please note: a copy of the standard should be available to all attendees during the gateway meeting.

Reasonable adjustments and special considerations
Highfield Assessment has measures in place for apprentices who require additional support. Please refer to the Highfield Assessment Reasonable Adjustments policy for further information/guidance.

ID requirements
Highfield Assessment will need to ensure that the person undertaking an assessment is indeed the person they are claiming to be. All employers are, therefore, required to ensure that each apprentice has their identification with them on the day of the assessment so the end-point assessor can check.

Highfield Assessment will accept the following as proof of an apprentice's identity:

- a valid passport (any nationality)
- a signed UK photocard driving licence
- a valid warrant card issued by HM forces or the police
- another photographic ID card, such as an employee ID card or travel card

Click here to return to contents

The Spectacle Technician apprenticeship standard

Below are the knowledge, skills and behaviours (KSBs) from the standard and related assessment criteria from the assessment plan. On-programme learning will be based upon the KSBs and the associated assessment criteria are used to assess and grade the apprentice within each assessment method.

Multiple-choice test
Knowledge
K5 Work based safety incidents: fire evacuation, accidents, near misses, use of emergency equipment, reporting processes **K7 Quality control Identifying**, **amending and recording order errors and omissions** **K12 Optical engraving** and **marking**, including engravings and markings found on safety eyewear and spectacle lenses and the impact on manufacturing and quality requirements **K13 Specialised optical products** such as **safety** and **sports eyewear, rimless mounts, prisms, mirror tints** or **Fresnel prisms** **K19 How the eye works:** including corrective prescriptions and **visual defects** **K23 Continuous improvement** techniques: for example **Lean**, and **5 S. Sort, set, shine, standardise and sustain** **K25 Automation and digitalisation** of optical manufacturing processes and its **benefits**
Skills
S7 Calibrate and maintain optical equipment and tools to supplier guidelines and MDD specifications, such as blocker, tracer, lens curve generator, coating equipment or focimeter
Amplification and guidance

• **Work based safety incidents**:
  ○ the fire evacuation processes must be followed correctly
  ○ technicians must know who their fire warden or health and safety representee is

- in the event of a fire alarm, technicians must leave the lab and head to the meeting point
- if a fire was to break out, the technician must activate the nearest fire alarm immediately
- when evacuating the lab, technicians should not gather any equipment or personal belongings
- technicians must be aware of the meeting point and the best route to this
- follow the requirements for visitors on the premises - this can be the use of a visitor logbook for visitors to sign in
- everyone should be aware of the location of the fire extinguisher in the store
- accidents need to be treated and reported to a first-aider
- eye baths and first-aid kits should be in the room
- all hazards are to be reported to the health and safety officer - this can be the lab manager or a representative from the shop floor
- both near misses and accidents must be reported immediately to a supervisor or safety officer to try and prevent them from happening in the future
- if a colleague was to become entangled in a machine, it should be stopped and turned off immediately
- first-aid kits must be fully stocked and ready to use at all times

- **Quality control identifying:**
  - an order is first checked for errors when it is placed
  - during quality control, all jobs are listed on the system and/or paper document to acknowledge that the job has been completed
  - the British Standard tolerances are used to verify finished spectacles
  - a focimeter can be used to measure and check the optical power
  - during the quality process, there is at least a 12-point check to identify that the spectacles are meeting the British Standard tolerances
  - this is then recorded on the lab slip to acknowledge that the spectacles meet the standards and are ready for dispatch
  - the quality control process must be completed to ensure customers receive products that meet industry standards

- **Amending and recording order errors and omissions:**
  - after identifying an order error during the manufacturing process, steps must be taken to rectify the issue to prevent further issues
  - any flaws on the lens that causes the spectacles to be returned either for credit or a remake will be logged if it is a lab error
  - there is often a production report on the number of jobs returned in relation to the number of jobs dispatched - this would be discussed weekly with lab managers to review any trends

- **Optical engraving:**
  - engravings are used on optical lenses to facilitate the glazing and assembly process.
  - to identify the engravings on a varifocal lens, a magnifying glass can be used.
  - if the engravings are neglected, the lens measurements on the finished product are likely to be incorrect.
  - varifocal engraving on lenses - small circles engraved onto the nasal/temporal sides of a lens, which when combined with the lens manufacturer's chart can be used to remark the lens back up. Check the lens type (look in the lens guidebook/folder or refer to a senior colleague for lenses that are not the organisation's) and confirm the reading addition.
  - when dealing with safety spectacles, ensure that they have the appropriate BN EN166 engraving to ensure validity and safety standards. If the engravings are missing, the eyewear may not comply with safety regulations.

- **Optical marking:**
  - according to the Medical Device Directive (MDD), frames are identified using the SKU number and CE marks
  - the UKCA marking shows that a frame or lens conforms to UK standards
  - the information marked on a frame may include bridge size, lens width, manufacturer's name (logo or brand) and the relevant safety standard markings

- **Specialised optical products:**
  - **Safety** eyewear offers protection against hazardous materials and flying debris, safeguarding the eyes from potential harm. They also serve as a vision correction tool, allowing individuals to see clearly while they work. To comply with legal requirements, technicians must not repair a broken pair of safety spectacles.
  - **Sports eyewear** is made to protect the eyes from potential dangers, such as flying objects. Sports glasses typically feature sturdy materials for both frames and lenses, ensuring they can endure impact while maintaining clear vision for the wearer.
  - **Rimeless mounts** are spectacles that do not have a frame but are held together by small screws attaching the lenses to the temples. They are minimalistic in appearance.
  - **Prism** spectacles are used when an individual experiences double vison. They function by refracting light to offset any weakness in the eye muscles.
  - **Mirror tints** offer protection from UV by reflecting the rays away from the eyes. They have a reflective coating used on the surface of the lens to improve visibility in bright conditions and reduce glare.
  - **Fresnel prisms** are thin transparent pieces of plastic that can be fitted to the inside of a lens to correct double vision. They will be sourced from the hospital.

- **How the eye works:**
  - the eye has many parts such as the cornea, pupil, lens, sclera and conjunctiva
  - the internal structure of the eye is made up of 3 layers:
    - the cornea and sclera make up the exterior layer
    - the uvea is the vascular layer in the middle
    - the retina is the inner layer
  - the eye works through these steps:
    - light entering the eye through the cornea
    - the pupils adjusting to the light
    - the lens focuses the light onto the retina
    - the light is focused onto the retina
    - the optic nerve transmits information to the brain

- **Visual defects** may include:
  - myopia:
    - often referred to as short-sightedness
    - allows clear vision of close objects while causing distant objects to appear blurred
    - a negative concave lens would typically be used to correct a myopic prescription
    - prescription swimming goggles are typically ordered for individuals with myopia
  - hypermetropia:
    - commonly known as long-sightedness
    - an error of the eye where distant objects appear clearer than nearby ones
    - a convex (plus) lens would be used to correct hypermetropia
  - astigmatism:
    - arises when the cornea or lens has an irregular shape, leading to blurred or distorted vision
    - this refractive error is corrected by the cylinder
  - presbyopia:
    - a condition associated with aging that impacts the eye's capability to focus on nearby objects
  - diplopia:

- commonly known as double vision
- a Fresnel prism can be used to correct diplopia

- **Continuous improvement:**
  - the objective of continuous improvement is to eliminate inefficiencies to enhance productivity and quality
  - continuous improvement techniques can result in an increase in productivity and efficiency in processes
  - technicians may complete structured training programmes to improve their skills and knowledge

- **Lean** methodology aims to improve the efficiency and quality of work by reducing unnecessary processes, procedures, products and waste

- **5 S. Sort, set, shine, standardise and sustain:**
  - sort – ensuring the lab is organised and everything is in the correct place
  - set – ensuring all items are in the optimal place to fulfil their function in the workplace, such as arranging the lab so that it is set up in an efficient manner
  - shine – sweeping, cleaning and inspecting the workplace and equipment on a regular basis to improve the production process, efficiency and safety
  - standardise – ensuring that all lab employees follow the same code of conduct
  - sustain – performing regular audits to ensure that the standards are being met and followed

- **Automation and digitalisation:**
  - the optical manufacturing process has become more automated
  - the use of new technology such as automated robots to aid the glazing process
  - a system that is used to order and process lens orders is the lens ordering process (LOP) - it automatically works out the best lens size to order depending on the prescription and lens type
  - digital equipment used in the lab may include a focimeter, a blocker and an edger
  - a Robotic Handling Unit (RHU) is often used due to its increased precision and ability to take 10 jobs on in 1 cycle
  - some limitations of automation and digitalisation include the increased risk of job displacement and the equipment's inability to handle complex or custom jobs

- during the ordering process, automatic focimeters are used to check prescriptions - they are commonly used instead of manual focimeters because they are faster and more accurate

- **Benefits** of automation and digitalisation may include:
  - more accurate results
  - ease of task completion
  - an increase in production efficiency
  - a reduction in the time taken to perform tasks
  - a reduction in human error/mistakes

- **Calibrate and maintain optical equipment and tools,** such as:
  - blocker:
    - use the metal frame block on the tracing part of the blocker to make sure that the frame's lens shape is matching with the system
    - when checking the lens mount, make sure that all probes or lens plates are clear of dust
    - if the blocker is not calibrated, the lenses are likely to be cut to the wrong shape
    - if the incorrect blocking pad has been used, the lenses may have been cut to the wrong axis
    - a frame that has no CE or UKCA marking on it should be discussed with the lab manager and refrained from tracing
  - focimeters:
    - the prescription check must meet the Medical Devices Directive (MDD) guidance and Bs tolerances. This can be done by using a dummy lens of power to see if the focimeter is reading to true standard form.
    - there is also the possibility that the prescription settings can be changed - for most accuracy use 0.01, instead of the 0.25.
    - if the focimeter begins to produce inaccurate readings, it should be calibrated following the manufacturer's instructions and using the calibration standards.
    - if the focimeter is producing inaccurate readings by a small margin, the technician should stop using it and report it to a senior member of staff.
  - glazing edgers:
    - these should be maintained regularly to reduce lens residue. This will involve changing the socks and clearing out the filtration system.
    - if the machine stops applying safety bevels, it should be booked in with an engineer for maintenance.
    - if the water in the edger is milky white and leaving residue on cut lenses, the filtration system should be cleaned out and the water replaced.

- if the edger is producing inaccurate results, such as cutting lenses too small, it must be calibrated.

- tint baths:
  - make sure to change the tints and UV filter treatments regularly for good tinting results
  - when changing the heat transfer fluid (HTF) always dispose of in general or specially collected waste, not down the sink
  - if an issue with the heating element arises, such as malfunctioning, it should be sent to the supplier for maintenance
  - if the tint bath is causing the lenses to become yellow after applying the UV coating, the contents on the tint jar should be emptied and replaced with a new UV pouch and water
- lens tracer:
  - if the lens tracer is damaged, the manufacturer should be contacted to arrange for an engineer to repair it
- lens curve generator:
  - if a technician notices that the curvature of the lenses produced is inconsistent with the specifications, they should calibrate the lens curve generator according to the manufacturer's instructions

Health and safety		
Knowledge	**Skills**	**Behaviours**
K4 Safe systems of work in the optical manufacturing environment, including **COSHH**, **PPE,** hazard and risk awareness, manual handling	**S1 Apply health and safety procedures** in compliance with regulations and standards **S4 Identify hazards and risks in the workplace**: **PPE**, **COSHH,** manual handling **S23 Apply safe systems of work** and control measures	**B1 Take personal responsibility for and promote health and safety**

Practical tasks with questioning	
Pass criteria	***Distinction criteria***
HS1 Prioritises health and safety by undertaking risk assessments, identifying potential hazards, wearing correct PPE, and following COSHH and manual handling guidance in line with the organisational requirements (K4, S4, B1) **HS2** Complies with safer systems of work and control measures in line with the regulations and standards within the organisation and sector (S1, S23)	**HS3** *Explains the impact to themselves and others of not complying with health and safety procedures in their working environment (S1)*

Amplification and guidance

- **Safe systems of work in the optical manufacturing environment:**
  - follow the internal reporting structures for health and safety incidents and concerns
  - dispose of waste in the correct way, such as water waste must not be poured down the drain, and the use of filtration units
  - check and replace heat transfer fluid (HTF) oil as necessary, such as every 6 months, or in line with equipment supplier recommendations
  - dispose of heat transfer fluid (HTF) oil correctly
  - store chemicals accurately, such as in a locked cupboard
  - follow health and safety policies and procedures
  - wear all the required personal protective equipment (PPE)

- **COSHH**
  - The Control of Substances Hazardous to Health regulations aim to protect individuals from harmful substances. They set out steps that can be taken to minimise the health risks posed by hazardous substances, such as safe storage.

- **PPE**
  - Personal protective equipment must be worn by technicians. This involves things such as safety goggles, gloves, face shields and aprons.

- **Apply health and safety procedures:**
  - when using the machines, for example, hand edgers and tint baths, the correct PPE should be worn, such as safety spectacles (goggles), gloves and lab coats
  - following the accident reporting and fire evacuations procedures
  - knowing who the health and safety company representee is, such as first-aiders and fire wardens

- **Identify hazards and risks in the workplace:**
  - PPE:
    - recognise when PPE must be worn
    - advise other technicians that they should be wearing PPE
  - COSHH:
    - chemicals that are not stored correctly pose health risks, such as respiratory issues and skin irritation
    - put all chemicals that are left out in a secure place
    - some chemicals that are likely to be found in the optical environment include, lens cleaning solutions, coating materials and solutions used for lens tinting or photochromic treatments
    - store all chemicals in the designated safe area
    - complete material safety data sheets (MSDS) for chemicals
    - follow the lab's processes and protocols
  - Manual handling:
    - manually handling goods incorrectly can result in injuries
    - follow safe manual handling guidance
    - help other staff members to handle deliveries

- **Apply safe systems of work** may include:
  - using the appropriate personal protective equipment (PPE), for example, wearing goggles when hand edging, and wearing gloves when emptying the socks
  - ensuring the lab is a safe environment to work in, such as clearing the floor to prevent trips and slips
  - ensuring there are appropriate safety measures in place if an accident were to occur, for example, a safety switch to turn all electrical equipment off

- **Take personal responsibility for and promote health and safety** by:
  - handling chemicals appropriately
  - using machinery with care
  - wearing the suitable personal protective equipment (PPE)
  - following relevant legislations and guidance
  - regularly maintaining and inspecting optical equipment
  - ensuring adequate airflow and ventilation in the lab
  - being aware of procedures to follow in emergency situations

Quality assurance	
Knowledge	**Skills**
K11 Principles of quality management: quality standards, assurance principles and practice. Quality data recording, retaining and storage	**S8 Apply quality assurance principles and procedures and record outcomes** for completed orders
Practical tasks with questioning	
Pass criteria	***Distinction criteria***
QA1 Applies quality assurance procedures to completed orders in line with the responsibilities, organisational requirements and manufacturer's guidance, recording the outcomes of the quality assurance process (K11, S8)	**QA2** *Checks the quality standards have been met at points during the task, prior to task completion (K11, S8)*

Amplification and guidance

• **Principles of quality management:**
  ○ follows the process for checking lenses for quality issues
  ○ regularly replaces tints
  ○ stores tints correctly
  ○ applies quality management throughout the glazing process
  ○ uses the correct cleaning products
  ○ carries out final quality checks
  ○ accurately follows the remake report
  ○ follows internal standards and processes to ensure an accurate assessment of quality
  ○ adheres to industry standards and tolerances to maintain high-quality standards
  ○ recognises surface quality defects from suppliers
  ○ follows the uncut lens inspection process
  ○ access and understand the productivity log
  ○ uses the correct blocking pads
 	
• **Apply quality assurance principles and procedures and record outcomes:**
  ○ during quality control, all jobs are listed on the system and/or a paper document to acknowledge that the job has been completed
  ○ there is at least a 12-point check to identify that the spectacles are meeting the British Standard tolerances
  ○ this is then recorded on the lab slip to acknowledge that the spectacles meet the standards and are ready for dispatch
  ○ any flaws on the lenses to cause the spectacles to be returned either for credit or to be remade, and logged if this is a lab error
  ○ there is often a production report on the number of jobs returned in relation to the number of jobs dispatched - this must be discussed weekly with the lab managers to review any trends

Credit processing	
Knowledge	**Skills**
K14 Supplier and credit return options and guarantees	**S22 Conducts supplier and credit process**
Practical tasks with questioning	
Pass criteria	***Distinction criteria***
CP1 Completes supplier and credit process in line with product and supplier guarantee guidelines (K14, S22)	*No distinction criteria*
Amplification and guidance	

- **Supplier and credit return options and guarantees.** This includes:
  - how to process lenses for credit
  - when this can and cannot be fulfilled
  - the importance of returning out-of-tolerance lenses for credit

- **Conducts supplier and credit processes** by using LOP to complete the:
  - lens ordering process
  - remake process
  - arriving delivery of lenses
  - credit and returns process

Communication	
Knowledge	**Skills**
K26 Communication techniques: verbal and written	**S3 Communicate with colleagues and stakeholders** for example, colleagues, managers and the public – verbal, written or electronic. Use industry terminology
Practical tasks with questioning	
Pass criteria	***Distinction criteria***
CO1 Communicates with stakeholders using verbal, written or electronic techniques, adapts to the context and uses industry terminology when appropriate (K26, S3)	*No distinction criteria*
Amplification and guidance	

- **Communication techniques:**
  - verbal communication:
    - being clear and concise
    - adapting the style of communication depending on who the communication is with, such as avoiding jargon when speaking to customers, and using a professional tone and language when speaking with suppliers
    - paying attention to the individual speaking
  - written communication:
    - ensure professional language is used when emailing suppliers
    - ensure handwriting and language used is understandable when writing notes for colleagues

- **Communicate with colleagues and stakeholders:**
  - customers – when working in the lab, technicians may need to advise customers of any delays to the spectacle order.
  - shop floor staff – this communication can be both verbal and written. It starts with the processing of the lab orders and can be followed by any chasing of orders over the phone or face to face.

- managers – this is likely to be an update on the day's progress or to authorise a change in an order set up.

Preparing for manufacturing process	
Knowledge	**Skills**
K18 Optical tools and equipment used in the optical product manufacturing and repair processes **K21 Standard operating procedures SOP's** **K27 Calibration tools and equipment** used in the optical product manufacturing and repair processes **K28** Work instructions including **optical prescriptions**, **manufacturer's guidance for component parts**	**S12 Prepare component parts** for manufacturing or treatment **S15 Apply standard operating procedures** SOPs for optical products **S17 Select tools and equipment** to manufacture and repair optical products **S18 Plan work sequence to support the effective use of time** and resources in the manufacturing process **S20 Check and calibrate tools and equipment** **S21 Interpret work instructions** including optical prescriptions, and **manufacturer's guidance for component parts**
Practical tasks with questioning	
Pass criteria	***Distinction criteria***
PM1 Follows standard operating procedures (SOP) and work instructions to prepare for each task including reviewing optical prescriptions and product manufacturer's guidance (K21, K28, S15, S21) **PM2** Checks tools and equipment for fitness-for-purpose and calibrates them if required (K18, K27, S17, S20)	*No distinction criteria*

PM3 Plans work sequence and prepares component parts for each task in line with the task requirements (S12, S18)	

Amplification and guidance

- **Optical tools and equipment** may include:
  - an auto-edger is used to accurately process and cut-to-shape various lens products
  - a focimeter is used to measure and verify lens powers to a prescription
  - a tracer/blocker is used to accurately scan frame shape and set lens for manufacture
  - a hand edger is used to manually apply safety bevel, apply size and shape changes, if necessary
  - a tint unit is used to apply dye to lenses as per the customer order
  - a rimless drill is used to create suitable holes in lenses for fittings to a rimless mount
  - a frame heater is used to heat and bend plastic frame parts

- **Standard operating procedures SOP's:**
  - the step-by-step instructions complied by the company
  - each step of the order journey
  - comply with industry regulations
  - seek authority and approval where needed

- **Calibration tools and equipment** may include:
  - a focimeter, which is used to measure the power of lenses
  - an autorefractor, which is used to measure the refractive error of the eye automatically
  - a lens edger, which is used to shape and edge lenses to fit frames accurately

- **Optical prescriptions** and the components that make them, may include:
  - a sphere
  - a cylinder
  - an axis

- a reading add
- a prism
- an intermediate add

- **Manufacturer's guidance for component parts:**
  - manuals can be used when using certain equipment
  - using different settings for different lens and frame types

- **Prepare component parts:**
  - remove dummy lenses from frames and dispose of these correctly
  - check uncut lenses for damage and blemishes
  - check prescription lens powers before glazing
  - check tint temperatures
  - ensure correct blocking pads are used

- **Apply standard operating procedures** by:
  - following the quality control process for optical products
  - storing chemicals in line with COSHH (Control of Substances Hazardous to Health) guidance
  - working efficiently
  - minimising errors and maintaining product precision
  - complying with industry standards and regulations, such as General Data Protection Regulations (GDPR), health and safety, and British Standard tolerances

- **Select tools and equipment:**
  - correct blocking pads
  - products to minimise risk of slippage with USCS lenses
  - varifocal guides when marking up
  - a focimeter to mark-up lenses
  - correct edger and blocker settings
  - tools such as screwdrivers, frame heaters and screw locks

- **Plan work sequence to support the effective use of time** by understanding:
  - what must be done throughout the working day
  - how long tasks will take to perform
  - what resources will be needed to complete the tasks
  - how to prioritise the tasks that must be done

- **Check and calibrate tools and equipment:**
  - regularly check the equipment to identify any signs of wear, damage or malfunction
  - compare the measurement accuracy of a tool or piece of equipment to the known standard
  - calibrate the equipment to ensure that it provides accurate results and meets specified tolerances

- **Interpret work instructions:**
  - analyse a prescription for optical errors
  - follow up with the errors on the order with the shop floor staff or lab manager
  - follow guidance when ordering, making sure to follow British Tolerances

Manufacturing and repair processes		
Knowledge	**Skills**	**Behaviours**
K9 Time management techniques: Planning, prioritising, work scheduling, workflow management **K15** The **remake** and reject procedures in optical product manufacturing **K24 Repair practices** and techniques in optical environments	**S5 Use tools and equipment required to manufacture optical products: lenses, frames and, component parts** **S13 Manufacture component parts** to complete the manufacturing or treatment process	**B5 Take responsibility for the quality** and **time management** of own work

K29 Manufacturing optical products and **component parts: lens, frames and component parts** **K30 The use of tools and equipment** in the manufacture, repair and remake and reject processes of optical products	**S16 Apply repair practices and techniques** to optical products	

Practical tasks with questioning	
Pass criteria	***Distinction criteria***
MR1 Takes responsibility for the tasks using tools and equipment required to: • manufacture • repair • remake and reject optical products including: lens, frames, treatments and component parts in line with task requirements and workflow instructions (K15, K24, K29, K30, S5, S13, S16) **MR2** Plans and manages own time to schedule and complete tasks in line with organisational policy and procedures, and quality standards for the finished products (K9, B5)	**MR3** *Checks the requirements for completion of product at points during each task, self correcting to ensure right first time (S13, B5)*

Amplification and guidance
• **Time management techniques:**   ○ work to targets to dispatch the number of jobs that are expected on the due dates

- move around the different areas, for example, while waiting for the order to finish glazing, go back to blocking or quality to keep a smooth process of the lab order journey
- be aware of the possibility of lone working and the best way to prioritise the lab order journey
- when an order comes from the shop floor, they are loaded into a tray and these trays are then marked with the order reference and date due
- orders can also be prioritised

- **Remake** procedures**:**
  - if a product is deemed faulty or is incorrect, a remake can be processed. This can be done in multiple ways, which is often specific to the organisation.

- **Repair practices** typically include:
  - assessing the damaged product, and deciding if it is something that can be repaired such as, missing nose pads and screws
  - using the available tools to repair a damaged product
  - taking into consideration the effects of using tools to repair a damaged product, for example, if a metal frame has been twisted, this could have weakened the material

- **Component parts: lens, frames, and component parts:**
  - lens types:
    - single vision
    - bifocal
    - varifocal
  - frames:
    - metal (Monel – nickel/copper alloy) – more cost effective, and comes in a variety of colours and styles
    - plastic (acetate) - acetate frames are made of lightweight plastic, and they generally have a fixed nose bridge which spreads the weight of the glasses over the bridge
    - titanium - strong, durable and hypoallergenic
    - stainless steel - hypoallergenic, strong, light weight and a corrosion-resistant metal
  - component parts:

- screws
- hinges
- nose pads
- temples

- **The use of tools and equipment** can include:
  - an auto-edger
  - a focimeter
  - a tracer/blocker
  - a hand edger
  - a tint unit
  - a rimless drill
  - a frame heater

- **Use tools and equipment required to manufacture optical products:**
  - an auto-edger - accurately process and cut-to-shape various lens products
  - a focimeter - measure and verify lens powers to a prescription
  - a tracer/blocker - accurately scan frame shape and set lens for manufacture
  - a hand edger - manually apply safety bevel, apply size and shape changes, if necessary
  - a tint unit - apply dye to lenses as per the customer order
  - a rimless drill - create suitable holes in lenses for fittings to a rimless mount
  - a frame heater - heat and bend plastic frame parts
  - machinery to be set up correctly using different functions for appropriate products, paying attention to applicable health and safety regulations, with a focus on quality and accuracy
  - use the appropriate functions on each item of machinery as applicable to each lens and frame type
  - various hand tools, such as screw drivers, pens/markers, spare parts and ruler/measuring tools

- **Manufacture component parts:**
  - correctly set up the machinery using the different functions for appropriate products

- pay attention to applicable health and safety regulations
- focus on quality and accuracy
- use the appropriate functions on each item of machinery as applicable to each lens and frame type

- **Apply repair practices and techniques:**
  - secure lenses, using the appropriate adjustment tools in accordance with health and safety guidance
  - replace screw: find the appropriate size screw and secure with the appropriate screwdriver
  - adding screw lock to meet BS standards to secure the lens to meet quality standards
  - frames adjustments: tools that can be used are frame heater, double or single nylon jaw pliers, screwdrivers and rimless adjustment tools

- **Takes responsibility for quality** by:
  - taking their time to follow correct quality control procedures
  - not rushing the glazing process and ensuring they are applying the correct settings to certain lenses and frame types

- Takes responsibility for **time management** by:
  - completing tasks at appropriate times of day, for example, emptying the socks at the start or end of the working day
  - setting out a structure for the working day
  - knowing what needs to be done and how long it may take
  - ensuring there is enough time to perform all tasks that need to be completed

The role of a spectacle technician in the optical manufacturing sector	
Knowledge	**Skills**
K6 Order placing methods, for example online, telephone, face to face, and the components of an order **K20 The optical manufacturing sector:** background, services and future trends	**S19 Produce customer orders** from online, telephone and face to face requests

K31 The spectacle technician roles and responsibilities, limits of autonomy and reporting channels	
Interview underpinned by a portfolio of evidence	
Pass criteria	***Distinction criteria***
RS1 Describes the optical manufacturing sector including its background, the services provided, and future trends (K20) **RS2** Outlines their role and responsibilities, the limits of their autonomy and reporting channels as a spectacle technician in the optical manufacturing sector (K31) **RS3** Explains how they produce customer orders from customer order requests placed online, face to face or by telephone (K6, S19)	**RS4** *Explains how their role impacts on the wider business operation (K6, S19)*
Amplification and guidance	

- **Order placing methods:**
  - online:
    - the orders from the shop floor will be sorted and ordered through the electronic system
  - telephone:
    - some external orders may need to be placed for out-of-range products - these products can consist of safety spectacles, sports goggles and non-core spectacle lenses

- **The optical manufacturing sector:**
  - the optical sector has a history dating back centuries
  - there have been many improvements in technology that have enabled optical manufacturing to develop, such as frames were previously cut using a plastic former, however, now these are done digitally
  - manufacturing techniques and machines have developed
  - there has been an evolution in the materials used for spectacles

- **The spectacle technician roles and responsibilities** may include:
  - producing high-quality products
  - following health and safety regulations
  - producing productivity reports
  - managing stock
  - completing remakes and repairs of spectacles
  - maintaining and cleaning equipment
  - creating spectacles in line with the customer's prescription and needs
  - recognising defects and errors

- **Limits of autonomy:**
  - a technician must be aware of what actions or decisions they can make independently, before needing assistance from others
  - a technician may need help or advice from colleagues or manufacturer's guidance surrounding new products or on the glazing technique

- **Produce customer orders:**
  - use clinical prescription details or order information to accurately process an order into production, for example, placing an order via email or over the phone with a direct supplier
  - check the order received is correct looking for the following components of a prescription:
    - sphere/cylinder/axis (prisms if required, with the direction of prism stated, for instance, 1.00 dioptre base in) addition.
    - pupil distance and heights,
    - extras lens type, coatings and treatments, such as sunglasses tints or ultraviolet coatings.
    - some orders may require a frame ordering - this can be for a complete order or just a frame only replacement.
    - be aware of the format that their lab works in, relating to +/- cylinder forms. If received this will need to be transposed to the correct cylinder form.

Team working		
Knowledge	**Skills**	**Behaviours**
K2 Team working principles **K34 Internal and external teams**, their function and interdependencies	**S2 Apply team working principles**	**B4 Support an inclusive culture**
Interview underpinned by a portfolio of evidence		
Pass criteria	***Distinction criteria***	
TW1 Explains the function and interdependencies of internal and external teams and how they apply teamworking principles within this context to support an inclusive culture (K2, K34, S2, B4)	*No distinction criteria*	

Amplification and guidance

- **Team working principles**:
  - positive interdependence: success depends on the collective effort; one team member's success is tied to the success of others, and vice versa
  - individual accountability: each team member's performance is evaluated, and feedback is provided both to the group and to individuals
  - group processing: at the end of each work period, the team reflects on its performance and functioning.
  - communication: focus on developing skills such as leadership, decision-making, trust-building, communication, and conflict management
  - promotive interaction: encouraging an environment where team members help, assist, encourage, and support each other's learning efforts

- **Internal and external teams:**
  - internal teams include:
    - lab team: this will include a team of spectacle technicians led by a lab manager. Their role is to use the technology provided to them to manufacture and produce high-quality products for the customer.

        - shop floor team: this is a team of optical assistants and dispensing opticians led by a store manager. Their role is to ensure they sell the correct products to their customers.
    - external teams include:
        - suppliers
        - delivery teams

- **Apply team working principles:**
    - communicate openly and honestly
    - be inclusive of all team members, even if there is a difference in opinion
    - take accountability for their own actions
    - decide as a team the strengths and areas for development, which will create a culture among the team to work well
    - distribute work appropriately
    - ensure that the team is aware of the objectives and are collectively working towards them
    - foster transparency within the team

- **Support an inclusive culture** by:
    - being respectful of colleagues
    - being able to adapt to colleague and customer needs
    - understanding allergens in products, such as nickel

Digital technology in the sector	
Knowledge	**Skills**
K32 Digital technology in the industry: stock management information systems, and equipment digital interfaces	**S14 Use information and digital technology**. **Comply with data protection, and cyber security regulations** and policies

Interview underpinned by a portfolio of evidence	
Pass criteria	***Distinction criteria***
DT1 Explains how they comply with data protection and cyber security policies when using digital technology, including stock management information systems and equipment digital interfaces (K32, S14)	**DT2** *Evaluates the impact of the use of digital technology within the sector (K32, S14)*

Amplification and guidance

- **Digital technology in the industry** may include:
  - blocker
  - edger
  - lens ordering process (LOP)
  - automatic focimeter
  - robots
  - stock management systems

- **Use information and digital technology** for:
  - ordering frames and lenses
  - processing a job for remake
  - completing a job on the computer system
  - accessing productivity and remake reports
  - processing a credit request

- **Comply with data protection, and cyber security regulations** by:
  - following data protection regulations, such as the General Data Protection Regulations (GDPR)
  - reporting any suspicious emails
  - storing passwords securely
  - handling customer data safely

Customer service		
Knowledge	**Skills**	**Behaviours**
K3 Customer types, including personal and business to business **K16 Customer service complaints** and their impact	**S11 Collect and use data on productivity** and quality to improve processes and staff training	**B3 Act in a professional manner**
Interview underpinned by a portfolio of evidence		
Pass criteria	***Distinction criteria***	
CS1 Outlines customer types, including personal and business to business and how they collect and use data on productivity and quality to benefit processes and contribute to staff training (K3, S11) **CS2** Acts in a professional manner when dealing with customer service complaints and their impact (K16, B3)	*No distinction criteria*	

Amplification and guidance

- **Customer types:**
  - external customers
    - these are also known as patients. These patients are going to be the patients purchasing the spectacles that are being manufactured.
  - internal customers:
    - the shop floor staff, which can include optometrists, dispensing opticians, contact lens opticians and optical advisers and managers.
    - working with the external lab and lens manufacturers and answering any queries they may have.

- **Customer service complaints**:
  - can affect the business's revenue and reputation

- technicians must aim to minimise customer complaints
- these should be dealt with accordingly and in line with the company's procedure
- may be about the service provided or the spectacles

- **Collect and use data on productivity:**
  - create records that show productivity and remake records
  - use data that is collected to make informed decisions about improving processes

- **Act in a professional manner** by:
  - wearing the correct uniform and personal protective equipment (PPE)
  - being respectful of colleagues
  - notifying customers when there is a delay using the correct language
  - supporting the learning of colleagues
  - using equipment in accordance with guidelines

Environment and sustainability		
Knowledge	**Skills**	**Behaviours**
K22 Principles of sustainability and circular economy. Energy efficiency and reuse of materials. **Recycling procedures**. **Efficient use of resources**	**S6 Identify, organise and use resources to complete tasks, with consideration for** cost, quality, priority and environmental impact	**B2 Take personal responsibility for their own sustainable working practices**

Interview underpinned by a portfolio of evidence	
Pass criteria	***Distinction criteria***
ES1 Explains how they take personal responsibility for their own sustainable working practices and the circular economy, following regulations guidance and standards which lead to the efficient use of resources and identify, organise and use resources to complete tasks, with consideration for cost, quality, priority and environmental impact (K22, S6, B2)	**ES2** *Evaluates impact on the organisation of recycling and reuse of materials and the drive to use resources efficiently (K22, S6)*

Amplification and guidance

- **Principles of sustainability and circular economy:**
  - using resources efficiently
  - promoting practices that minimise the environmental impact
  - disposing of waste correctly
  - encouraging innovation in manufacturing
  - creating sustainable habits
  - reusing and recycling where possible

- **Recycling procedures** could include:
  - recycling dummy lenses
  - recycling packaging such as cardboard and plastics

- **Efficient use of resources:**
  - using filtration systems to recycle and reuse water
  - abiding by manufacturer's instructions and only changing filtration socks/central chamber when needed
  - being energy efficient, for example, ensuring electrical devices are switched off when not in use and when the lab is closed

- **Identify, organise and use resources to complete tasks with consideration for:**
  - quality:

        - all spectacle jobs go through at least a minimum of a twelve-point check, making sure to meet the British Standard tolerances.
        - the jobs are checked off at each stage of the ordering journey to allow for a signatory to sign the task that they have achieved, so that the order is tracked. This all allows the quality inspector to approach that member of staff if there is a flaw on the make-up of the spectacles.
        - when checking the spectacles, the frame is checked to make sure there is no damage or adjustments that need to be completed before checking the vision.
        - then the lenses are checked for any flaws and if the prescription is suitable on the focimeter.
        - once this process is complete then the spectacles can get ready for dispatch.
    - environment:
        - recycling cardboard and plastic dummy lenses
        - using water soluble tints
        - allowing the plastic dummy lenses to be recycled into environmentally-friendly frames

- **Take personal responsibility for their own sustainable working practices** by:
    - following the guidance and training given on the correct processes for using the glazing equipment to reduce waste
    - being energy efficient by turning off lights and equipment where possible
    - correctly recycling materials
    - regularly seeking new ways to improve

CPD Continuous professional development	
Knowledge	**Behaviours**
K17 Workplace and industry training and development techniques. Managing own **Continuous Professional Development CPD**	**B6 Seek new ways of working**, whilst committing to **Continuous Professional Development CPD**

Interview underpinned by a portfolio of evidence	
Pass criteria	***Distinction criteria***
CPD1 Describes how they seek out new ways of working as part of their workplace and industry CPD activities (K17, B6)	*No distinction criteria*
Amplification and guidance	

- **Workplace and industry training and development techniques:**
  - mentoring by colleagues or mangers
  - engaging in workplace training
  - one-to-ones and appraisals
  - reviewing and tracking skills, knowledge and ability over time

- **Seeks new ways of working** by:
  - attending work courses that teach new methods of work
  - speaking to other lab technicians in other stores to find out how they do things differently
  - using feedback from one-to-ones and appraisals to find new ways of working

- **Continuous Professional Development CPD** by:
  - researching new products and technology
  - attending work-based meetings
  - progressing the role in the lab, such as moving towards a senior role within the lab
  - moving into new areas of the business, such as working as an optical assistant on the shop floor

Policy and procedure	
Knowledge	**Skills**
K1 Legislation, and regulated activities within the Optical working environment: **data protection regulations**, **General Optical Council GOC**, **Health & Safety**, **industry tolerances** and **Safeguarding** **K8 Stock** and **stock control systems** **K10** Optical equipment: **supplier and employer maintenance guidelines** including **Medical Devices Directive** MDD specifications for focimeters	**S10 Monitor stock levels and rotate stock**
Interview underpinned by a portfolio of evidence	
Pass criteria	***Distinction criteria***
PP1 Explains how the data protection regulations, General Optical Council GOC, Health & Safety, industry tolerances and Safeguarding impact on the work of a spectacle technician (K1) **PP2** Explains how they use organisational stock and control systems to monitor levels and rotate stock (K8, S10) **PP3** Explains how supplier maintenance guidelines including medical devices directive (MDD) specifications for focimeters impact on the role of a spectacle technician (K10)	*No distinction criteria*
Amplification and guidance	

• **Data protection regulations:**
  ○ the General Data Protection Regulation (GDPR) must be followed. This can be done by:
  ▪ logging off systems
  ▪ shredding documents in the correct shredding facility	

        - using customer numbers or order numbers when confirming information with other optical team members to keep things as private as possible
        - not sharing any information in public environments

- **General Optical Council (GOC)** requirements:
    - referral to clinical colleagues for support and advice when identifying an ocular emergency.
    - taking measurements and completing a dispense/collection for customers under 16, sight impaired or severely sight impaired.
    - all must be under the guidance of a registered professional (optometrist or dispensing optician). If not this could lead to fines, dismissal, removal from the GOC register or the loss of their NHS contract.

- **Health and safety:**
    - Technicians must comply with safe working policies and procedures, such as:
        - fire evacuation policy
        - identifying risks and hazards in the workplace
        - how to respond to an accident
        - knowing when to use personal protective equipment (PPE)
        - using tools and equipment correctly
        - storing chemicals and hazardous products correctly

- **Industry tolerances** ensure that that spectacles are constructed correctly and in line with standards across the country, and are fit for purpose

- **Safeguarding** is ensuring that an individual's health, well-being and human rights are protected and enabling them to live free from harm, abuse and neglect. Examples of responding to safeguarding issues include:
    - assessing the situation
    - ensuring the safety and well-being of the individual
    - establishing what the individual's views and wishes are about the safeguarding issue and procedure
    - following local procedures for reporting incidents/risks

- **Stock** will include items such as lenses, cleaning solutions, slip pads, screws, cases and accessories

- **Stock control systems:**
  - central online systems are there to log in stock orders that are needed for the shopfloor
  - there is also stock take checks to check things such as spectacle cases, slip pads for glazing, sprays, tints, screws and adjustment tools
  - some stores may also keep a low stock of lenses for glazing - this will also need to be logged in the stock report

- **Supplier and employer maintenance guidelines:**
  - accurately recording the maintenance tasks required for a service log, which includes the completion of daily, weekly and monthly tasks
  - carries out first-line maintenance on a variety of equipment, such as tint unit, waste tanks, and the end-of-day clean down
  - calibrates equipment when it is required
  - correctly deals with error codes on blockers and edgers
  - uses maintenance records
  - follows the MDD labelling requirements

- The **Medical Devices Directive** states that all devices placed on the market must carry the CE Mark - this applies to the frames that are used for spectacle manufacturing

- **Monitor stock levels and rotate stock:**
  - change the tints in the baths once the colouration has expired. This is dependent on how many jobs have been tinted. This also applies to ultraviolet coatings.
  - check and order slip pads for glazing.
  - order accessories and case as and when required.
  - order chemicals for cleaning.
  - order stock lenses if needed.

Manufacturing bespoke products	
Knowledge	**Skills**
K33 Bespoke optical products	**S9 Identify products, their classification** and any impact on manufacturing or quality, for example **engravings on safety glasses, and remarking progressives**
Interview underpinned by a portfolio of evidence	
Pass criteria	***Distinction criteria***
MB1 Explains how they identify and make adjustments to create bespoke optical products, for example engraving on safety glasses and remarking progressives (K33, S9)	*No distinction criteria*
Amplification and guidance	

- **Bespoke optical products** may include:
  - tailormade varifocal lenses
  - occupational lenses
  - safety spectacles
  - prescriptions sports/swimming goggles

- **Identify products, their classification:**
  - safety spectacles must meet BS EN 166
  - to meet regulation EU 216/425, all personal protective equipment (PPE), including safety glasses, must conform to British safety standards

- **Engravings on safety glasses, and remarking progressives:**
  - progressive lenses come with engraving fitting circles - these can be seen when held up to a light
  - once the fitting circles have been obtained, there will be an engraving to identify the lens type and reading addition
  - the technician can then look up the lens supplier and dot up the circles and then line up with the correct fitting chart with the lens

- they can then add the prism checking point and distance and near areas onto the lenses, ready to focimeter or set up for glazing

Click here to return to contents

Assessment summary

The end-point assessment for the Spectacle Technician apprenticeship standard is made up of 3 assessment methods:

1. A multiple-choice test consisting of **45** multiple-choice questions of **75-minute** duration
2. A **2-hour (10%)** practical task with questions, consisting of **5 tasks** and at least **4 questions**
3. A **60-minute (10%)** interview underpinned by a portfolio of evidence, with at least **6 questions**

As an employer/training provider, you should agree a plan and schedule with the apprentice to ensure all assessment components can be completed effectively.

Each component of the end-point assessment will be assessed against the appropriate criteria laid out in this kit, which will be used to determine a grade for each individual. The grade will be determined using the combined grades.

Multiple-choice test

All assessment methods are weighted equally. Total marks available are 45.

- To achieve a **pass**, apprentices will score at least 26 out of 45
- To achieve a **distinction**, apprentices must score at least 36 out of 45
- **Unsuccessful** apprentices will have scored 25 or below

The test may be delivered online or be paper-based and should be in a 'controlled' environment.

Practical tasks with questions

All assessment methods are weighted equally. Apprentices will be marked against the pass and distinction criteria outlined in this kit.

- To achieve a **pass**, apprentices must achieve all of the pass criteria
- To achieve a **distinction**, apprentices must achieve **all** of the pass criteria and **all** of the distinction criteria
- **Unsuccessful** apprentices will not have achieved all of the pass criteria

The practical task with questions must take place in a simulated environment.

Interview underpinned by a portfolio of evidence

All assessment methods are weighted equally. Apprentices will be marked against the pass and distinction criteria outlined in this kit.

- To achieve a **pass**, apprentices must achieve all of the pass criteria
- To achieve a **distinction**, apprentices must achieve **all** of the pass criteria and **all** of the distinction criteria
- **Unsuccessful** apprentices will not have achieved all of the pass criteria

The interview may be conducted using technology such as video link, as long as fair assessment conditions can be maintained.

Grading

The apprenticeship includes pass, merit and distinction grades, with the final grade based on the apprentice's combined performance in each assessment method.

To achieve a pass, the apprentice must achieve a pass in all the assessments.

To achieve a merit, the apprentice must achieve a distinction in the interview underpinned by a portfolio of evidence or/and the practical tasks with questions.

To achieve a distinction, the apprentice must achieve a distinction in all the assessments.

The overall grade for the apprentice is determined using the matrix below:

Practical tasks with questions	Interview underpinned by a portfolio of evidence	Multiple-choice test	Overall grade awarded
Fail any of the 3 assessment methods			**Fail**
Pass	Pass	Pass	**Pass**
Pass	Pass	Distinction	**Pass**
Pass	Distinction	Pass	**Merit**
Distinction	Pass	Pass	**Merit**
Distinction	Distinction	Pass	**Merit**
Distinction	Pass	Distinction	**Merit**
Pass	Distinction	Distinction	**Merit**
Distinction	Distinction	Distinction	**Distinction**

Retake and resit information

If an apprentice fails an end-point assessment method, it is the employer, provider and apprentice's decision whether to attempt a resit or retake. If a resit is chosen, please call the Highfield scheduling team to arrange the resit. If a retake is chosen, the apprentice will require a period of further learning and will need to complete a retake checklist. Once this is completed, please call the Highfield scheduling team to arrange the retake.

A resit is typically taken within **2 months** of the EPA outcome notification. The timescale for a retake will be dependent on how much retraining is required but is typically taken within **3 months** of the EPA outcome notification.

When undertaking a resit or retake, the assessment method(s) will need to be reattempted in full, regardless of any individual assessment criteria that were passed on any prior attempt. The EPA Report will contain feedback on areas for development and resit or retake guidance.

Any EPA component resit/retake must be taken within a **6-month period**, otherwise the entire EPA must be retaken in full. Apprentices should have a supportive action plan to prepare for the resit/retake.

Apprentices who achieve a pass grade cannot resit or retake the EPA to achieve a higher grade.

Where any assessment method must be resat or retaken, the apprentice will be awarded a maximum grade of merit, unless there are exceptional circumstances that are beyond the control of the apprentice as determined by Highfield.

Click here to return to contents

Assessing the multiple-choice test

The test consists of **45 multiple-choice questions** and will last **75 minutes**. The **pass** mark is 26 out of 45 and the **distinction** mark is 36 out of 45.

The apprentice will have at least **1 weeks'** notice of the date and time of the test.

Multiple-choice questions provided for the assessment of S7 will be scenario based.

The multiple-choice test must be delivered online and should be taken in a 'controlled' and invigilated environment. The test is closed book which means that the apprentice cannot refer to reference books or materials.

Before the assessment

The employer/training provider should:

- brief the apprentice on the areas that will be assessed by the knowledge test.
- in readiness for end-point assessment, set the apprentice a mock knowledge test. A test is available to download from the Highfield Assessment website. The mock tests are available as paper-based tests and also on the mock e-assessment system.

Multiple-choice test criteria

Multiple-choice test
K5 Work based safety incidents: fire evacuation, accidents, near misses, use of emergency equipment, reporting processes
K7 Quality control Identifying, amending and recording order errors and omissions
K12 Optical engraving and marking, including engravings and markings found on safety eyewear and spectacle lenses and the impact on manufacturing and quality requirements
K13 Specialised optical products such as safety and sports eyewear, rimless mounts, prisms, mirror tints or Fresnel prisms
K19 How the eye works: including corrective prescriptions and visual defects
K23 Continuous improvement techniques: for example Lean, and 5 S. Sort, set, shine, standardise and sustain
K25 Automation and digitalisation of optical manufacturing processes and its benefits
S7 Calibrate and maintain optical equipment and tools to supplier guidelines and MDD specifications, such as blocker, tracer, lens curve generator, coating equipment or focimeter

Click here to return to contents

Assessing the practical tasks with questions

In the practical tasks with questions, an assessor will observe the apprentice completing a series of tasks. This will take place in a stimulated environment that closely relates to the apprentice's natural working environment.

The apprentice will have **2 weeks'** notice of the practical tasks with questions.

The practical tasks with questions will last a total of **2 hours**, with **1.5 hours** for the practical element followed by **30 minutes** allocated for questions. The assessor can increase the time by up to 10% to allow the apprentice to complete a task or respond to a question.

The assessor will brief the apprentice on the format and timescales of the practical tasks with questions before it starts. The time taken for this briefing is not included in the assessment time.

The practical tasks with questions can only be split for comfort breaks and to allow the apprentice to move from 1 location to another where required. Breaks will not count towards the total assessment time.

The following activities must be observed during the practical tasks:

- task 1 a remake and reject procedure
- task 2 the end to end manufacturing process for a pair of spectacles
- task 3 quality assurance checks conducted on products created from the tasks
- task 4 a supplier and credit return for a pair of spectacles
- task 5 the repair of a pair of spectacles

All tasks must demonstrate health and safety considerations and follow the organisation's standard operating procedures. Copies of the standard operating procedures are to be submitted to Highfield at gateway.

Questions will be asked after the practical tasks to assess the apprentice's breadth and depth of competence against the grading descriptors. The assessor will ask a **minimum of 4 questions**. Follow-up questions will be asked where required.

Before the assessment

Employers/training providers should:

- ensure the apprentice knows the date, time and location of the assessment
- ensure the apprentice knows which spectacle technician criteria will be assessed (outlined on the following pages)

- encourage the apprentice to reflect on their experience and learning on-programme to understand what is required to meet the standard and identify real-life examples
- be prepared to provide clarification to the apprentice, and signpost them to relevant parts of their on-programme experience as preparation for this assessment

Grading the practical tasks with questions

Apprentices will be marked against the pass and distinction criteria included in the tables on the following pages (under 'Practical tasks with questions criteria').

- To achieve a **pass**, apprentices must achieve all of the pass criteria
- To achieve a **distinction**, apprentices must achieve all of the pass criteria **and** all of the distinction criteria
- **Unsuccessful** apprentices will have not achieved all of the pass criteria

Practical tasks with questions mock assessment

It is the employer/training provider's responsibility to prepare apprentices for their end-point assessment. Highfield recommends that the apprentice experiences a mock practical task with questions in advance of the end-point assessment, with the training provider/employer giving feedback on any areas for improvement.

In designing a mock assessment, the employer/training provider should include the following elements in its planning:

- the mock practical task with questions should take place in a suitable location.
- a 2-hour time slot should be available for the practical tasks with questions, if it is intended to be a complete mock practical task with questions covering all relevant standards (outlined in the following pages). However, this time may be split up to allow for progressive learning.
- consider a video or audio recording of the mock practical tasks with questions and allow it to be available to other apprentices, especially if it is not practicable for the employer/training provider to carry out a separate mock observation with questions with each apprentice.
- ensure that the apprentice's performance is assessed by a competent trainer/assessor, and that feedback is shared with the apprentice to complete the learning experience. Mock assessment sheets are available to download from the Highfield Assessment website and may be used for this purpose.
- use structured, 'open' questions that do not lead the apprentice but allows them to give examples for how they have met each area in the standard. For example:
    - health and safety
        - When completing a risk assessment what steps would you take?
    - preparing for manufacturing process
        - Explain how you checks tools and ensure that they are fit for purpose.
    - manufacturing and repair processes
        - How do you plan and manage your own time to ensure that you complete tasks in line with quality standards?
    - communication
        - Explain how you know when it is appropriate to use industry terminology.

Practical tasks with questions criteria

Throughout the **2-hour** practical tasks with questions, the assessor will review the apprentice's competence in the criteria outlined below.

Apprentices should prepare for the practical tasks with questions by considering how the criteria can be met.

Health and safety
To pass, the following must be evidenced.
HS1 Prioritises health and safety by undertaking risk assessments, identifying potential hazards, wearing correct PPE, and following COSHH and manual handling guidance in line with the organisational requirements (K4, S4, B1) **HS2** Complies with safer systems of work and control measures in line with the regulations and standards within the organisation and sector (S1, S23)
To gain a distinction, the following must be evidenced.
HS3 *Explains the impact to themselves and others of not complying with health and safety procedures in their working environment* (S1)

Quality assurance
To pass, the following must be evidenced.
QA1 Applies quality assurance procedures to completed orders in line with the responsibilities, organisational requirements and manufacturer's guidance, recording the outcomes of the quality assurance process (K11, S8)
To gain a distinction, the following must be evidenced.
QA2 *Checks the quality standards have been met at points during the task, prior to task completion* (K11, S8)

Credit processing
To pass, the following must be evidenced.
CP1 Completes supplier and credit process in line with product and supplier guarantee guidelines (K14, S22)
To gain a distinction, the following must be evidenced.
No distinction criteria

Communication
To pass, the following must be evidenced.
CO1 Communicates with stakeholders using verbal, written or electronic techniques, adapts to the context and uses industry terminology when appropriate (K26, S3)
To gain a distinction, the following must be evidenced.
No distinction criteria

Preparing for manufacturing process
To pass, the following must be evidenced.
PM1 Follows standard operating procedures (SOP) and work instructions to prepare for each task including reviewing optical prescriptions and product manufacturer's guidance (K21, K28, S15, S21) **PM2** Checks tools and equipment for fitness-for-purpose and calibrates them if required (K18, K27, S17, S20) **PM3** Plans work sequence and prepares component parts for each task in line with the task requirements (S12, S18)
To gain a distinction, the following must be evidenced.
No distinction criteria

Manufacturing and repair processes
To pass, the following must be evidenced.
MR1 Takes responsibility for the tasks using tools and equipment required to: • manufacture • repair • remake and reject optical products including: lens, frames, treatments and component parts in line with task requirements and workflow instructions (K15, K24, K29, K30, S5, S13, S16) **MR2** Plans and manages own time to schedule and complete tasks in line with organisational policy and procedures, and quality standards for the finished products (K9, B5)

To gain a distinction, the following must be evidenced.
MR3 *Checks the requirements for completion of product at points during each task, self correcting to ensure right first time* (S13, B5)

Click here to return to contents

Assessing the interview underpinned by a portfolio of evidence

In the interview underpinned by a portfolio of evidence, the assessor asks the apprentice questions to assess their competence against the relevant criteria outlined in this kit.

Apprentices will have access to their portfolio during the interview. They can refer to and illustrate their answers with evidence from their portfolio of evidence during the interview. However, the portfolio of evidence is not directly assessed.

The apprentice will have **2 weeks'** notice of the interview underpinned by a portfolio of evidence.

It will take place in a suitable environment and can be conducted by video conferencing. It will last for **60 minutes**. The independent assessor can increase the time of the interview underpinned by a portfolio of evidence by up to **10%** to allow the apprentice to respond to a question if necessary.

The assessor will ask **at least 6 questions**. Follow-up questions will be asked where clarification is required. The purpose of the questions is to assess the following themes:

- team working
- customer service
- policy and procedure
- environment and sustainability
- continuous improvement

Before the assessment

Employers/training providers should:

- ensure the apprentice knows the date, time and location of the assessment
- ensure the apprentice knows which criteria will be assessed (outlined on the following pages)
- encourage the apprentice to reflect on their experience and learning on-programme to understand what is required to meet the standard
- be prepared to provide clarification to the apprentice, and signpost them to relevant parts of their on-programme experience as preparation for this assessment

Grading the interview underpinned by a portfolio of evidence

Apprentices will be marked against the pass and distinction criteria included in the tables on the following pages (under 'Interview underpinned by a portfolio of evidence criteria').

- To achieve a **pass**, apprentices must achieve all of the pass criteria
- To achieve a **distinction**, apprentices must achieve all of the pass criteria **and** all of the distinction criteria
- **Unsuccessful** apprentices will have not achieved all of the pass criteria

Interview underpinned by a portfolio of evidence mock assessment

It is the employer/training provider's responsibility to prepare apprentices for their end-point assessment. Highfield recommends that the apprentice experiences a mock interview underpinned by a portfolio of evidence in preparation for the real thing. The most appropriate form of mock interview underpinned by a portfolio of evidence will depend on the apprentice's setting and the resources available at the time.

In designing a mock assessment, the employer/training provider should include the following elements in its planning:

- the mock interview underpinned by a portfolio of evidence should take place in a suitable location.
- a 60-minute time slot should be available to complete the interview underpinned by a portfolio of evidence, if it is intended to be a complete interview covering all relevant standards. However, this time may be split up to allow for progressive learning.
- consider a video or audio recording of the mock interview underpinned by a portfolio of evidence and allow it to be available to other apprentices, especially if it is not practicable for the employer/training provider to carry out a separate mock assessment with each apprentice.
- ensure that the apprentice's performance is assessed by a competent trainer/assessor, and that feedback is shared with the apprentice to complete the learning experience. Mock assessment sheets are available to download from the Highfield Assessment website and may be used for this purpose.
- use structured, 'open' questions that do not lead the apprentice but allows them to express their knowledge and experience in a calm and comfortable manner. For example:
    - team working
        - Explain the function of the internal teams in your organisation.

- customer service
  - Explain how you act in a professional manner when dealing with customer service complaints.
- policy and procedure
  - How do supplier maintenance guidelines affect your role?
  - Explain the steps you take to ensure that you are following health and safety regulations.
- environment and sustainability
  - How do you take personal responsibility for working sustainably?
- continuous improvement
  - What continuous professional development (CPD) have you undertaken to seek new ways of working?

Interview underpinned by a portfolio of evidence criteria

Throughout the **60-minute** interview underpinned by a portfolio of evidence, the assessor will review the apprentice's competence in the criteria outlined below.

Apprentices should prepare for the interview underpinned by a portfolio of evidence by considering how the criteria can be met.

The role of a spectacle technician in the optical manufacturing sector
To pass, the following must be evidenced.
RS1 Describes the optical manufacturing sector including its background, the services provided, and future trends (K20) **RS2** Outlines their role and responsibilities, the limits of their autonomy and reporting channels as a spectacle technician in the optical manufacturing sector (K31) **RS3** Explains how they produce customer orders from customer order requests placed online, face to face or by telephone (K6, S19)
To gain a distinction, the following must be evidenced.
RS4 *Explains how their role impacts on the wider business operation* (K6, S19)

Team working
To pass, the following must be evidenced.
TW1 Explains the function and interdependencies of internal and external teams and how they apply teamworking principles within this context to support an inclusive culture (K2, K34, S2, B4)
To gain a distinction, the following must be evidenced.
No distinction criteria

Digital technology in the sector
To pass, the following must be evidenced.
DT1 Explains how they comply with data protection and cyber security policies when using digital technology, including stock management information systems and equipment digital interfaces (K32, S14)
To gain a distinction, the following must be evidenced.
DT2 *Evaluates the impact of the use of digital technology within the sector* (K32, S14)

Customer service
To pass, the following must be evidenced.
CS1 Outlines customer types, including personal and business to business and how they collect and use data on productivity and quality to benefit processes and contribute to staff training (K3, S11) **CS2** Acts in a professional manner when dealing with customer service complaints and their impact (K16, B3)
To gain a distinction, the following must be evidenced.
No distinction criteria

Environment and sustainability
To pass, the following must be evidenced.
ES1 Explains how they take personal responsibility for their own sustainable working practices and the circular economy, following regulations guidance and standards which lead to the efficient use of resources and identify, organise and use resources to complete tasks, with consideration for cost, quality, priority and environmental impact (K22, S6, B2)
To gain a distinction, the following must be evidenced.
ES2 *Evaluates impact on the organisation of recycling and reuse of materials and the drive to use resources efficiently* (K22, S6)

CPD Continuous professional development
To pass, the following must be evidenced.
CPD1 Describes how they seek out new ways of working as part of their workplace and industry CPD activities (K17, B6)
To gain a distinction, the following must be evidenced.
No distinction criteria

Policy and procedure
To pass, the following must be evidenced.
PP1 Explains how the data protection regulations, General Optical Council GOC, Health & Safety, industry tolerances and Safeguarding impact on the work of a spectacle technician (K1) **PP2** Explains how they use organisational stock and control systems to monitor levels and rotate stock (K8, S10) **PP3** Explains how supplier maintenance guidelines including medical devices directive (MDD) specifications for focimeters impact on the role of a spectacle technician (K10)
To gain a distinction, the following must be evidenced.
No distinction criteria

Manufacturing bespoke products
To pass, the following must be evidenced.
MB1 Explains how they identify and make adjustments to create bespoke optical products, for example engraving on safety glasses and remarking progressives (K33, S9)
To gain a distinction, the following must be evidenced.
No distinction criteria

Click here to return to contents