

# Apprenticeship Standard for Dental Technician at Level 5

## Assessment plan

### 1. Summary of Assessment

On successful completion of this apprenticeship the apprentice will be competent and job-ready.

The apprenticeship standard provides a high-level description of the skills, knowledge, values and behaviours required of the apprentice. The assessment plan describes how the apprentice is assessed at the end of their apprenticeship and by whom.

Employers, training providers, assessment experts and the General Dental Council (GDC) have informed the content of the standard and assessment plan. Apprentices will be able to apply for entry to the General Dental Council register as a Dental Technician, on completion of their on-programme qualification.

The purpose of the end-point assessment is to test (in a synoptic way) the skills, knowledge and behaviours of the apprentice as set out in the apprenticeship standard and to confirm that the apprentice is occupationally competent.

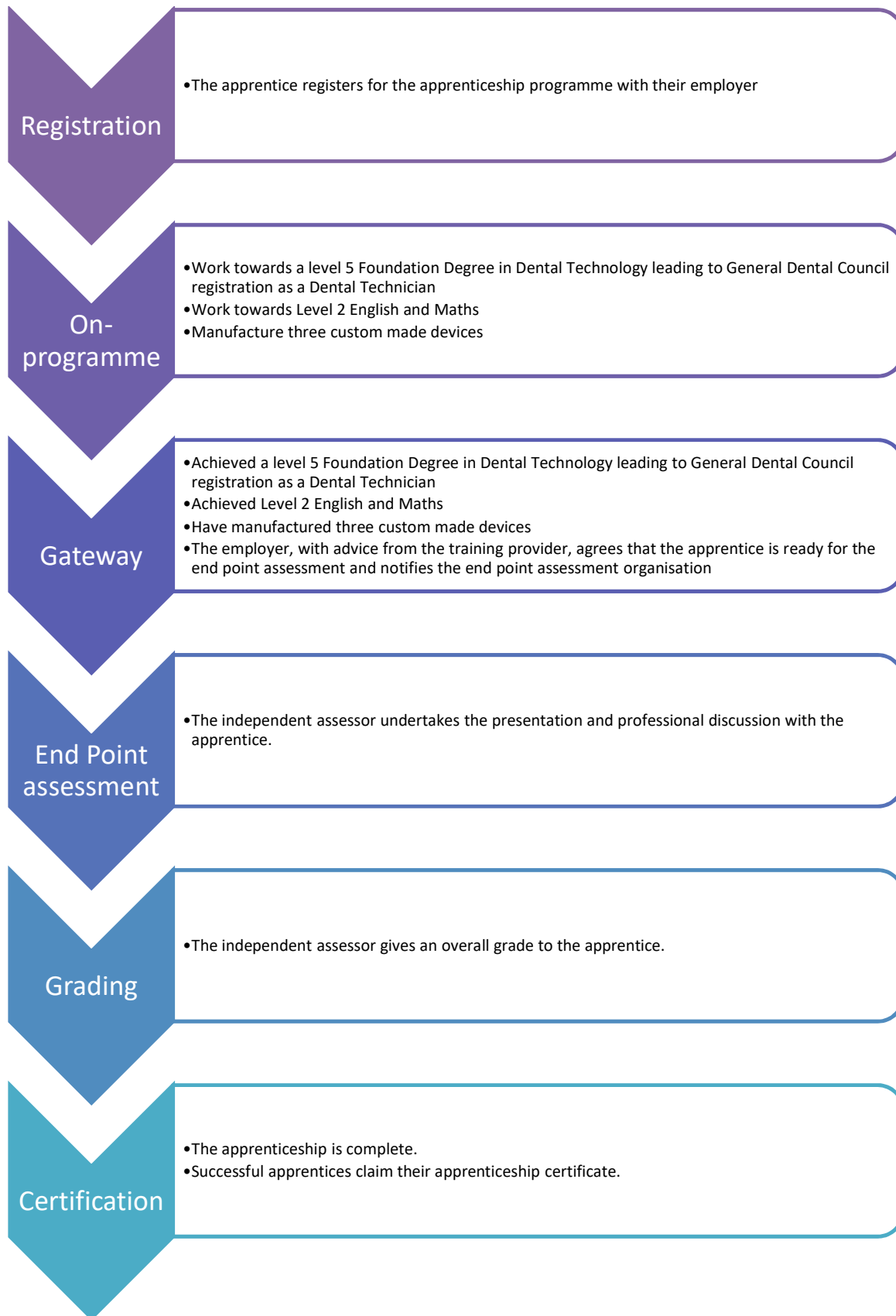
It provides apprentices with an opportunity to provide evidence of what they have learned and are able to do, as well as measuring how they conduct themselves in a work environment by the end of their apprenticeship.

#### 1.1 The end point assessment comprises two assessment methods

1. A presentation of custom made devices including questions and answers
2. A professional discussion

See the Assessment flowchart overleaf.

## 1.2 Assessment Flowchart



## 2. End Point Assessment Overview

| Assessment Method              | Area Assessed  | Assessed by                       | Grading                  |
|--------------------------------|--|-----------------------------------|--------------------------|
| <b>Presentation</b>            | <p>The presentation is a holistic assessment of the standard. Apprentices will show a range of devices, demonstrating the skills, knowledge and behaviours within the following domains.</p> <p><b>Knowledge</b></p> <ul style="list-style-type: none"> <li>• Oral anatomy</li> <li>• Dental devices and combating oral problems</li> <li>• Manufacturing procedures</li> <li>• Material selection</li> <li>• The dental team and professionalism</li> <li>• Medical Devices Directive and GDC guidelines</li> </ul> <p><b>Skills</b></p> <ul style="list-style-type: none"> <li>• Appropriate device selection</li> <li>• Device manufacture <ul style="list-style-type: none"> <li>○ Prosthetic Device Manufacture (Dentures)</li> <li>○ Conservation Device Manufacture (Crown or Bridge)</li> <li>○ Orthodontic Device Manufacture (Braces)</li> </ul> </li> <li>• Digital manufacturing procedures</li> <li>• Device assessment</li> <li>• Implants and attachments</li> <li>• Communication</li> <li>• Decontamination &amp; infection control</li> </ul> <p><b>Behaviours</b></p> <ul style="list-style-type: none"> <li>• Continuing Personal Development</li> <li>• Ethical/legal awareness</li> <li>• Collaboration</li> <li>• Responsibility &amp; Integrity</li> </ul> <p>The specific skills, knowledge and behaviours to be assessed are set out in Appendix 1. The assessor will further test the apprentice's knowledge during the presentation through a question and answer session.</p> | End point Assessment Organisation | Fail/ Pass/ Distinction  |
| <b>Professional discussion</b> | <p>The scenario-based professional discussion is a holistic assessment of the standard. It will assess the apprentice's skills, knowledge and behaviours in regard to the following domains:</p> <p><b>Knowledge</b></p> <ul style="list-style-type: none"> <li>• Manufacturing Procedures</li> </ul>  | End Point Assessment Organisation | Fail/ Pass / Distinction |

|  |   |  |  |
|--|---|--|--|
|  | <ul style="list-style-type: none"> <li>• Material Selection</li> <li>• The Dental Team and Professionalism</li> <li>• Medical Devices Directive and GDC guidelines</li> </ul> <p><b>Skills</b></p> <p>Appropriate Device Selection</p> <ul style="list-style-type: none"> <li>• Device Assessment</li> <li>• Communication</li> <li>• Decontamination and Infection Control</li> </ul> <p><b>Behaviours</b></p> <ul style="list-style-type: none"> <li>• Continuing Personal Development</li> <li>• Ethical/Legal Awareness</li> <li>• Collaboration</li> </ul> <p>The specific skills, knowledge and behaviours to be assessed are set out in Appendix 2</p> |  |  |
|--|---|--|--|

### 3. 4. Assessment Gateway

Before going forward for end point assessment the apprentice must have completed:

1. Level 5 Foundation Degree Science in Dental Technology
2. Level 2 Maths and English. Apprentices without level 2 English and maths will need to achieve this level prior to completing the end-point assessment. For those with an education, health and care plan or a legacy statement the apprenticeships English and maths minimum requirement is Entry Level 3 and British Sign Language qualification are an alternative to English qualifications for whom this is their primary language.
3. Have manufactured three custom made devices (one of each of dentures, crown/bridge and orthodontic appliance) made to a prescription from a dental care professional which are not assessed on programme.

Judgement on whether the apprentice is ready for the end point assessment is taken by the employer who should check that that the apprentice has met the requirements above and gather views from the training provider and the apprentice to inform this decision. Apprentices should not be put forward for the end point assessment before they are ready.

### 5. Administering End Point Assessment

The end point assessment is triggered by the employer, who will usually consult with the training provider, when they judge that gateway requirements have been met, and after determining the readiness of the apprentice. All training, development, assessment and review activities that take place up to the end point assessment are considered as being 'on-programme'.

- The independent assessor **must not** have been involved in any on-programme training, development, review or assessment of the apprentice or be involved with the apprentice as an employer/ manager.
- The date and timing of the assessment is agreed with the apprentice, their employer and the assessment organisation.
- The assessment may take place in the apprentice's normal place of work or at suitable premises organised by the End Point Assessment Organisation. It is up to the End Point Assessment Organisation to decide if they will schedule both assessments on one day or on different days, according to number of apprentices, their location and the availability of assessors.
- The end point assessor is responsible for ensuring that the apprentice has met all the gateway requirements prior to administering the end point assessment.

**5.1 Grading:** at the conclusion of the end point assessment, the independent assessor collates the evidence and determines the final grading for the apprenticeship. The grading decision is made solely by the independent assessor. Grading decisions may be subject to moderation by the end-point assessment organisation.

**5.2 Re-takes/re-sits:** Apprentices who fail one or more assessment method will be offered the opportunity to take a resit/re-take. A resit does not require further learning, however a re-take does. : Apprentices are only required to re-take/re-sit the element of the end point assessment they have failed.

Apprentices who re-take/re-sit can only achieve a pass grade as a maximum, unless the End Point Assessment Organisation identifies exceptional circumstances accounting for the original fail. Apprentices who have passed are not permitted to re-take/re-sit for the purposes of improving their grade.

All assessment methods must be successfully completed within a 6-month period, after the End Point Assessment Gateway.

## 6. The End Point Assessment

The End Point Assessment contains two elements: presentation and professional discussion.

### 6.1 Presentation

During their programme the apprentices will have made a series of custom made devices that are used in real life by patients which will be used to underpin this assessment method. The purpose of the presentation is to show how the apprentice was involved in the manufacture and design of these and that the resulting device was made in line with the prescription and to the required standards. The apprentice will present 3 custom made devices (one of each of dentures, crown/bridge and orthodontic appliance) made to the prescription of a dentist. These will have been made by the apprentice and not assessed on-programme and will be used to underpin the assessment. Evidence should be provided by the apprentice that demonstrates appropriate design procedures and material selection. Using the actual device/s during the presentation would be encouraged but it is not necessary to show the actual device as in most instances this will already have been sent to the prescribing dentist (or in the case of dentures a clinical dental technician) and be in use by the patient. The apprentice will give a verbal presentation which will be underpinned with video evidence followed by the opportunity for the assessor to lead a question and answer session to clarify what has been shown.

The presentation is undertaken by the independent assessor in the apprentice's normal place of work or at suitable premises organised by the End Point Assessment Organisation and lasts for 90 minutes (plus or minus 10% at the discretion of the independent assessor) (30 minutes per device including video, presentation and question and answer session). The assessor will ask additional questions to clarify what they have been shown this should last no more than 10 minutes per device and fall within the total allocated time of 90 minutes for the presentation. The presentation should take place in a quiet room, free from distractions. Sound and visual equipment must be available to show the videos, as well as a laptop, projector and flip chart for the apprentice to use if they wish to during their presentation. Should an unexpected event occur, for example a fire alarm, the observation will be paused and re-started.

The presentation can be terminated at any time if the work being shown is not the apprentices own and the apprentice will be given a fail grade. Where this happens the apprentice cannot be awarded an overall grade above pass for any re-take.

Evidence to prove that the work is the apprentices own will be required to support the presentation. This will take the form of a short video clip made during the manufacturing process of each device. The video clip must last no longer than 5 minutes for each device. They must be signed off by trainers that they represent the apprentices own work and that the devices and video have not been assessed on-programme. The apprentice can use other supporting mediums for the remainder of the presentation eg poster or slideshow presentation. Evidence from the prescriber that the appliance is clinically acceptable must also be provided to support the presentation. Videos, evidence from the prescriber and any

electronic materials, such as a slideshow, will need to be submitted to the Independent Assessor prior to the presentation at least 2 weeks before the end point assessment date as agreed by the End Point Assessment Organisation. The End Point Assessment Organisation will advise the employer and apprentice of submission deadlines.

The requirements in Appendix 1 must be covered during the presentation. The presentation is graded by the independent assessor.

During the presentation the apprentice will:

| Area  | Method                                       |
|---|--|
| <ul style="list-style-type: none"> <li>• Demonstrate understanding of a prescription and of working as part of the dental team</li> </ul>   | Presentation                                 |
| <ul style="list-style-type: none"> <li>• Demonstrate an understanding of normal oral anatomy and physiology</li> </ul>  | Presentation                                 |
| <ul style="list-style-type: none"> <li>• How they have worked with the dentist or dentist's prescription to evaluate the patient's needs.</li> </ul>  | Presentation                                 |
| <ul style="list-style-type: none"> <li>• How design of custom-made devices can contribute to restoration of functionality as well as prevention of oral disease/further decline.</li> <li>• Gives examples of indications of other possible designs that might have provided different solutions to the case</li> </ul>   | Presentation                                 |
| <ul style="list-style-type: none"> <li>• Design, manufacture, assess, repair, modify and provide biomechanically sound custom- made dental devices for each of the following, including:               <ul style="list-style-type: none"> <li>○ Design and manufacture complete and partial removable prosthesis</li> <li>○ Design and manufacture single metallic and tooth coloured restorations</li> <li>○ Create substructures for bridgework and apply tooth coloured materials for permanent restorations</li> <li>○ Design and manufacture removable, functional and fixed orthodontic appliances</li> <li>○ Describes specific learning points achieved during the manufacturing or during self-assessment of the appliance</li> <li>○ Explains how other materials and manufacturing processes might have been effectively used in manufacturing the case</li> </ul> </li> </ul> | Presentation (underpinned by video evidence) |
| <ul style="list-style-type: none"> <li>• Ready to take responsibility for integrity of completed work</li> </ul>  | Presentation                                 |
| <ul style="list-style-type: none"> <li>• How to practice safely including minimising risk of infection</li> </ul>   | Presentation (underpinned by video evidence) |

## 6.2 Professional Discussion

The scenario-based professional discussion takes place between the independent assessor and the apprentice and lasts for 40 minutes (plus or minus 10% at the discretion of the independent assessor). It will take place in a designated space, in a quiet room that is free from distractions. The professional discussion will assess the apprentice's skills, knowledge and behaviours identified in Appendix 2. One scenario will be used during the professional discussion. The apprentice is allowed an additional 10 minutes, prior to the 30-minute discussion, to read, look at or watch the scenario and make notes in preparation for the discussion.

Professional discussion is not simply a question and answer session but a two-way conversation between the apprentice and assessor. A structured template designed by the end point assessment organisation will be used for managing and marking the professional discussion to ensure consistency. The assessor must not use prompts or questions that would 'lead' the apprentice.

The end point assessment organisation will devise a scenario based on common activities carried out in their role for use during end point assessment. The scenarios can be either written or a video. The scenario will present the apprentice with a situation that allows them to discuss with the assessor what they have read or seen, how the situation could have occurred and what they would do in these circumstances. The assessor will have prepared at least one discussion point for each domain that can be used to provide the apprentice with the opportunity to evidence the required skills, knowledge and behaviours using a range of examples from their own practice. It is not necessary to use all discussion points but the assessor must ensure that all relevant knowledge, skills and behaviours are covered during the professional discussion.

End point assessment organisations will need to ensure that scenarios are of comparable demand and provide sufficient information for the apprentice to be able to use what they have seen or read as the reference point for the evidence presented.

To do this the end point assessment organisation will ensure that:

- a written scenario is between 400 and 500 words
- a video is 2 minutes in duration

The scenario must provide the apprentice with the opportunity to cover all of the requirements in Appendix 2.

For retakes, the scenario used should be different to the one presented to the apprentice on the previous attempt(s). The end point assessment organisation must develop 'scenario specification banks' of sufficient size to prevent predictability and review them regularly (and at least once a year) to ensure they, and the specifications they contain, are fit for purpose.

## 6.3 Grading Criteria

### 6.3.1 Presentation

The presentation is considered a single assessment. It will assess the elements in **bold** in Appendix 1 and is given an overall grade by the independent assessor where:

- **Fail**

The Apprentice does not meet all the requirements in bold within **Appendix 1**. They fail to meet the pass criteria outlined below or the work they present is not their own.

- **Pass**

The apprentice meets all requirements in bold within **Appendix 1**.

- The apprentice can explain how that they are able to apply the knowledge, skills and behaviours required by the standard.
- This will be demonstrated by presenting three biomechanically sound devices that they have made to prescription.
- The apprentice will show an understanding of how each is designed and manufactured including the processes, procedures and materials involved in design, including being able to explain how other materials might have been effectively used.
- They will be able to show how the devices are used to restore function, prevent oral disease or further decline, showing an understanding of normal oral anatomy and physiology and recognising oral limitations and their effect on devices.
- They will be able to give an example of indications against each device of other possible designs that might have provided different solutions and will show an understanding of different manufacturing procedures, including CAD, CAM and IT solutions, that they may be used.
- They will be able to explain how they worked with the dentist and the prescription, including how they have evaluated the patient's needs.
- They will be able to evidence how they have communicated effectively with and about patients.
- The apprentice will be able to describe how they have practised safely, including minimising the risk of infection.

- **Distinction**

As for pass but in addition:

- They are able to demonstrate that they find solutions to problems and can give an example of doing so independently whilst still acting within the limits of their competence and the boundaries of their role.
- They will be able to give two examples against each device of indications of other possible designs that might have provided different solutions
- Their response will demonstrate an holistic understanding and application of the knowledge, skills and behaviours to their own practice by providing relevant examples which draw across two or more domains



### 6.3.2 Professional discussion

The scenario-based professional discussion is considered a single assessment and is given an overall grade by the independent assessor where:

- **Fail**  
The Apprentice does not meet all of the knowledge, skill and behaviour requirements listed in bold in Appendix 2 and fails to meet the pass criteria below
- **Pass**  
The apprentice meets all of the knowledge, skill and behaviour requirements listed in bold in Appendix 2:
  - The apprentice can explain the application of their skills, knowledge and behaviours required within their role and is able to provide examples from their day to day work that show this.
  - The examples they give during the professional discussion will show that they have an underpinning understanding of the scope of practice defined by the General Dental Council (GDC).
  - They provide three examples of how they have evaluated a patient and their treatment requirements, demonstrating an understanding of prescriptions and when to refer to other team members.
  - They explain how they communicate effectively about patients, their representatives and the wider dental team.
  - Using the same examples they are able to demonstrate how they have selected dental devices for patients and can explain oral limitations and the effects they may have on each device.
  - They can provide two examples of when they have made an improvement to their own work practice on feedback from a supervisor or colleague.
  - They can explain the networks they have established with other dental professionals or the wider healthcare team.
  - They are able to explain how to handle complaints and know the processes for escalation and safeguarding.
  - They recognise their own role in leadership and management and can give an example of when they have used these skills in their workplace.
  - Throughout the professional discussion they demonstrate that they understand and adhere to processes and procedures.
  - They may deal with topics individually rather than holistically but their understanding and application is accurate.
  - They are able to show that they understand and adhere to occupational behaviours and carry out their role in a responsible manner whilst still acting within the limits of their competence and the boundaries of their role.
- **Distinction**  
As for pass but in addition:
  - They are proactive in their own development and demonstrate how their own reflection has impacted on their practice.
  - They are able to demonstrate that they find solutions to problems and can give an example of doing so independently whilst still acting within the limits of their competence and the boundaries of their role.
  - Their response will demonstrate an holistic understanding and application of the knowledge, skills and behaviours to their own practice by providing relevant examples which draw across two or more domains

### 6.3.3 Overall grading

The successful apprentice receives an overall grade of Pass and is determined by the independent assessor. The apprentice must pass both elements of the end point assessment.

| Presentation | Professional Discussion | Overall Grade |
|--------------|-------------------------|---------------|
| Fail         | Fail                    | Fail          |
| Fail         | Pass                    | Fail          |
| Fail         | Distinction             | Fail          |
| Pass         | Fail                    | Fail          |
| Pass         | Pass                    | Pass          |
| Pass         | Distinction             | Pass          |
| Distinction  | Fail                    | Fail          |
| Distinction  | Pass                    | Pass          |
| Distinction  | Distinction             | Distinction   |

### 6.4 Independence

End point assessments are carried out by staff from independent end-point assessment organisations on the Education and Skills Funding Agency's Register of End Point Assessment Organisations.

## 7. Roles and Responsibilities

| Role  | Responsibilities  |
|---|---|
| Apprentice  | <ul style="list-style-type: none"> <li>Participates fully in their training and development</li> <li>Actively contributes to their performance reviews</li> <li>Contributes to the decision on the timing of their end point assessment</li> </ul>  |
| Employer  | <ul style="list-style-type: none"> <li>Supports the apprentice throughout their training and development</li> <li>Conducts reviews to monitor progress</li> <li>Checks gateway requirements</li> <li>Determines when the apprentice is competent and ready to attempt the end point assessment</li> </ul>   |
| Training Provider that is approved by the General Dental Council and is also on the Register of Apprenticeship Training Providers | <ul style="list-style-type: none"> <li>Provides on-going education and training for the apprentice</li> <li>Provides tools and processes to support the apprentice</li> <li>Carries out regular reviews with the apprentice and employer</li> <li>Advises the employer when the apprentice is ready to undertake the end point assessment.</li> </ul>   |
| Assessment Organisation that is on the Register of End Point Assessment Organisations   | <ul style="list-style-type: none"> <li>Takes no part in the training of those apprentices for whom they complete end point assessments</li> <li>Devises assessment materials and administers the end point assessment</li> <li>Recruits and trains independent assessors</li> <li>Ensures assessors are occupationally competent, are able to assess the performance of the apprentice using the end point assessment methods and are able to determine the grade achieved</li> <li>Undertakes annual standardisation and moderation activities</li> <li>Actively participates in the quality assurance procedures described in this assessment plan</li> </ul> |
| Independent Assessor  | <ul style="list-style-type: none"> <li>Assesses the professional discussion and the presentation</li> <li>Determines the final apprenticeship grade</li> </ul>  |

## 8. Quality Assurance

### 8.1 Internal quality assurance

End point assessment organisations that deliver end point assessment for the Dental Technician apprenticeship must be accepted by the Education and Skills Funding Agency onto the Register of End Point Assessment Organisations.

Once accepted to the register, the end point assessment organisations develop the assessments and supporting materials. Assessments are designed to produce assessment outcomes that are consistent and reliable, allowing fair and proper comparison between apprentices employed in different types and sizes of organisations.

End-point assessment organisations are required, *as a minimum*, to:

- provide EPA guidance to apprentices, employers and training providers in relation to the requirements of the presentation and professional discussion.
- ensure the independent assessors make consistent and reliable assessment and preliminary grade judgements
- develop assessment tools and documentation, it is recommended that this is done in consultation with representative employers
- ensure that there is consistency and comparability in terms of the breadth and depth of each assessment, to ensure assessments are reliable, robust and valid
- consider evidence in relation to reasons for failing an EPA method and confirm whether a grade higher than pass will be allowed for a re-take/re-sit of the professional discussion, where the learner may have failed due to circumstances beyond their control.
- be prepared to facilitate reasonable adjustments for learners with special requirements.
- provide guidance in relation to the EPA i.e. making reasonable adjustment, eligibility to enter EPA and conflict of interest.
- appoint and approve independent assessors to conduct the EPA marking and initial grading, based on a check of knowledge and experience.
- provide training for independent assessors in terms of the requirements of the operation and marking of the EPA tools and initial grading.
- provide training for independent examiners and independent assessors in undertaking fair and impartial assessment and making judgements about performance and the application of knowledge, skills and behaviours within a workplace setting.
- hold annual events for independent examiners and independent assessors to ensure consistent application of the guidance, and independent assessors must attend one annually
- ensure assessment organisation moderation staff are trained in assessment and quality assurance processes and undertake regular continuing professional development annually.
- checks grading decisions and moderates where necessary.
- develop and manage a complaints and appeals procedure.

Only assessors appointed by the end point assessment organisation are able to carry out the end point assessment. Assessors must:

- Be currently occupationally competent across the whole of the standard i.e. a GDC registered dental technician and have post-qualifying clinical experience
- Assessors must have experience of working in a dental lab as a GDC registered practitioner and hold an assessor qualification

Assessment organisations are required, *as a minimum*, to

- hold an internal annual standardisation event for assessors which focuses on current assessment practices and issues which have arisen.

## **8.2 External quality assurance**

External quality assurance is provided by Ofqual.

## **9. Professional Recognition**

Dental Technicians are statutorily regulated by the General Dental Council. The apprentice can apply for registration after they complete their on-programme Foundation Degree.

## **10. Intake**

It is expected that there will be around 100 apprenticeship starts in the first year and 150 starts per year once established.

## **11. Affordability**

This approach to independent assessment has been tested with employers who have confirmed that it is the preferred approach.

Cost analysis verified that this approach was the most cost-effective method of all.

## **12. Manageability and Feasibility**

The end point assessment has been designed to meet the needs of all employers and all environments across the dental sector including corporates to single handed practices.

The approach is expected to be manageable and feasible as the necessary expertise already exists within the sector. We would expect end point assessment organisations to tap into employer organisations when recruiting for independent assessors. Utilising existing expertise would ensure a sufficiency of qualified assessors with a good geographical spread.

## Appendix 1 – Presentation matrix

Through the presentation of 3 custom-made devices, the apprentice must provide evidence of meeting all the requirements **in bold** below. These are considered to be the higher order knowledge, skills and behaviours, and will capture those not in bold for that domain, and when combined with the evidence from the professional discussion, give assurance that the apprentice is competent across the whole standard. The End Point Assessment Organisation is responsible for designing the format of the presentation to enable the apprentice to demonstrate these skills and knowledge outcomes.

| <b>Knowledge Domains</b>                     | <b>The Dental Technician will have knowledge of:</b>   |
|--|--|
| Oral Anatomy                                 | <b>Normal dental/oral anatomy and physiology.</b>  |
| Dental devices and combating oral problems   | <b>How design of custom-made devices can contribute to restoration of functionality as well as prevention of oral disease/further decline.</b>   |
| Manufacturing Procedures                     | <b>The procedures used in design and manufacture of custom made devices - dentures, crowns, bridges, orthodontic (including Computer Aided Design (CAD)/ Computer Aided Manufacturing (CAM) &amp; IT Solutions).</b> |
| Material Selection                           | <b>The principles regarding the selection and use of materials for use in custom made dental devices.</b>  |
| The Dental Team and Professionalism          | The role of the Dental Technician and other dental team members in management and leadership, professionalism and communication  |
| Medical Devices Directive and GDC Guidelines | Compliance with the Medical Devices Directive Council 93/42/EEC (MDD), GDC standards for Dental Team, Scope of Practice  |

| <b>Skills Domains</b>                             | <b>The dental technician will be able to:</b>  |
|---|--|
| Appropriate Device Selection                      | <b>Advise the prescribing dentist on appropriate dental devices based on dentist input, while recognising oral limitations and their effect on devices. Evaluate, for individual patients, the need for more complex treatment and seek advice from the dentist or more experienced Dental Technicians as appropriate.</b> |
| Device Manufacture                                | <b>Design, manufacture, assess, repair, modify and provide biomechanically sound custom- made dental devices</b> in the following three areas  |
| 1. Prosthetic Device Manufacture (Dentures)       | <b>Design and manufacture complete and partial removable prosthesis,</b> including the provision of custom made impression trays   |
| 2. Conservation Device Manufacture (Crown/Bridge) | Produce models and dies for conservation work<br><b>Design and manufacture single metallic and tooth coloured restorations</b><br><b>Create substructures for bridgework and apply tooth coloured materials for permanent restorations</b>   |
| 3. Orthodontic Device Manufacture (Braces)        | Produce models for Orthodontic case study purposes and appliance construction<br><b>Design and manufacture removable, functional and fixed orthodontic appliances</b>  |
| Digital Manufacturing Procedures                  | <b>Aware of the basic procedures used in design and manufacture of custom made devices (including CAD/CAM &amp; IT Solutions).</b>   |
| Device Assessment                                 | <b>Assess impressions, models and finished devices as well as the fitness for purpose of devices and propose alternatives where necessary, in line with patient prescription, and formally record these decisions as for MDD requirements</b> Can review and <b>Quality Assure</b> the devices                             |
| Implants and attachments                          | <b>Aware of basic procedures for the use of implants, milling and precision attachments as used with various forms of custom made dental restorations</b>  |

|                                     |   |
|-------------------------------------|---|
| Communication                       | <b>Communicate effectively with and about patients, their representatives and the rest of the dental team. Handle complaints effectively and within GDC guidelines.</b> |
| Decontamination & Infection Control | <b>Manage safety, infection control and decontamination risks around the dental laboratory in keeping with current regulations</b>                                      |

| <b>BehaviourDomains</b>         | <b>What is required</b>   |
|---------------------------------|---|
| Continuing Personal Development | Proactive in their own development, willing to commit to lifelong learning by use of a Personal Development Plan (PDP), <b>personal reflection and continuous improvement.</b>  |
| Ethical/Legal Awareness         | Recognise and act within GDC standards, ethical guidance, information governance and relevant laws.   |
| Collaboration                   | Willing to give and receive feedback effectively and tactfully within the wider dental team; takes responsibility for establishing personal networks with dental professionals, specialists and other relevant individuals and organisations. |
| Responsibility & Integrity      | <b>Ready to take responsibility for integrity of completed work.</b>  |

## Appendix 2 – Professional discussion matrix

Professional discussion is not simply a question and answer session but a two-way conversation between the apprentice and assessor. During the professional discussion the apprentice must be assessed against all the requirements listed **in bold** below. These are considered to be the higher order knowledge, skills and behaviours and will capture those not in bold for that domain, and when combined with the evidence from the presentation, give assurance that the apprentice is competent across the whole standard. A structured template, designed by the end point assessment organisation, will be used for the professional discussion to ensure consistency (see section 6.2 for further details).

| <b>Knowledge Domains</b>                   | <b>The Dental Technician will have knowledge of:</b>  |
|--|---|
| Oral Anatomy                               | Normal dental/oral anatomy and physiology.  |
| Dental devices and combating oral problems | How design of custom-made devices can contribute to restoration of functionality as well as prevention of oral disease/further decline.   |
| Manufacturing Procedures                   | The procedures used in design and manufacture of custom made devices - dentures, crowns, bridges, orthodontic (including Computer Aided Design (CAD)/ Computer Aided Manufacturing (CAM) & IT Solutions). |
| Material Selection                         | The principles regarding the selection and use of materials for use in custom made dental devices.  |
| The Dental Team and Professionalism        | <b>The role of Dental Technician and other dental team members in management and leadership, professionalism and communication.</b>   |
| Medical Devices Directive & GDC Guidelines | <b>Compliance with the Medical Devices Directive Council 93/42/EEC (MDD), GDC standards for Dental Team, Scope of practice</b>  |

| <b>Skills Domains</b>                            | <b>The dental technician will be able to:</b>  |
|--|--|
| Appropriate Device Selection                     | <b>Advise the prescribing dentist on appropriate dental devices based on dentist input, while recognising oral limitations and their effect on devices. Evaluate, for individual patients, the need for more complex treatment and seek advice from the dentist or more experienced Dental Technicians as appropriate.</b> |
| Device Manufacture                               | Design, manufacture, assess, repair, modify and provide biomechanically sound custom- made dental devices in the following three areas   |
| 1.Prosthetic Device Manufacture (Dentures)       | Design and manufacture complete and partial removable prosthesis, including the provision of custom made impression trays  |
| 2.Conservation Device Manufacture (Crown/Bridge) | Produce models and dies for conservation work<br>Design and manufacture single metallic and tooth coloured restorations<br>Create substructures for bridgework and apply tooth coloured materials for permanent restorations   |
| 3.Orthodontic Device Manufacture (Braces)        | Produce models for Orthodontic case study purposes and appliance construction<br>Design and manufacture removable, functional and fixed orthodontic appliances   |
| Digital Manufacturing Procedures                 | Aware of the basic procedures used in design and manufacture of custom made devices (including CAD/CAM & IT Solutions).  |
| Device Assessment                                | Assess impressions, models and finished devices as well as the fitness for purpose of devices and propose alternatives where necessary, in line with patient prescription, and formally record these decisions as for MDD requirements Can review and Quality Assure the devices   |
| Implants and attachments                         | Aware of basic procedures for the use of implants, milling and precision attachments as used with various forms of custom made dental restorations   |

|                                     |   |
|-------------------------------------|---|
| Communication                       | <b>Communicate effectively with and about patients, their representatives and the rest of the dental team. Handle complaints effectively and within GDC guidelines.</b> |
| Decontamination & Infection Control | Manage safety, infection control and decontamination risks around the dental laboratory in keeping with current regulations   |

| <b>Behaviour Domains</b>        | <b>What is required</b>  |
|---------------------------------|--|
| Continuing Personal Development | <b>Proactive in their own development, willing to commit to lifelong learning by use of a Personal Development Plan (PDP) personal reflection and continuous improvement.</b>  |
| Ethical/Legal Awareness         | <b>Recognise and act within GDC standards, ethical guidance, information governance and relevant laws.</b>   |
| Collaboration                   | <b>Willing to give and receive feedback effectively and tactfully within the wider dental team; takes responsibility for establishing personal networks with dental professionals, specialists and other relevant individuals and organisations.</b> |
| Responsibility & Integrity      | Ready to take responsibility for integrity of completed work.  |