



National unit specification

General information

Unit title: Dental Anatomy: an Introduction (SCQF level 6)

Unit code: HK5M 46

Superclass: RH

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Version: 01

Unit purpose

This unit has been designed to develop the learner's knowledge and understanding of oral and facial anatomy related to dental technology. Learners will focus on dental anatomy and tooth eruption.

This is an introductory unit, mandatory within the National Certificate in Dental Technology at SCQF level 6, so is appropriate for trainee Dental Technicians.

Outcomes

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

- 1 Identify the Oro-facial structures.
- 2 Outline the anatomical features of the edentulous oral cavity.
- 3 Outline growth patterns and development of human dentition.

Credit points and level

0.5 National unit credit at SCQF level 6: (3 SCQF credit points at SCQF level 6)

Recommended entry to the unit

Access to this unit is at the discretion of the centre. It would be helpful if learners had successfully completed or be working towards the unit *Dental Care Professionals: Fitness to Practice*.

National unit specification: General information (cont)

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Core Skills

Opportunities to develop aspects of Core Skills are highlighted in the support notes for this unit specification.

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

Context for delivery

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

Equality and inclusion

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

Further advice can be found on our website www.sqa.org.uk/assessmentarrangements.

National unit specification: Statement of standards

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

Outcome 1

Identify the Oro-facial structures.

Performance criteria

- (a) Accurately identify the four features of the Temporomandibular Joint
- (b) Accurately identify a range of facial muscles and bones

Outcome 2

Outline the anatomical features of the edentulous oral cavity.

Performance criteria

- (a) Identify a range of maxillary and mandibular anatomical features
- (b) Describe the significance of the anatomical features identified in regard to the construction of a dental appliance

Outcome 3

Outline growth patterns and development of human dentition.

Performance criteria

- (a) Describe tooth eruption
- (b) Compare morphology of deciduous and adult dentition

National unit specification: Statement of standards (cont)

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Evidence requirements for this unit

Evidence is required to demonstrate that learners have achieved all outcomes and performance criteria.

Learners should be presented with real or simulated projects and given a clear brief to ensure that they have the opportunity to achieve all the performance criteria.

Evidence must be provided to show that learners can demonstrate their understanding of, and work with, information and terminology and techniques related to dental anatomy and their significance in the production of dental appliances. Evidence must also be provided to show that learners can apply relevant knowledge and skills in a practical context.

Learners will be required to demonstrate safe working practices, including infection prevention and control during the practical aspects of delivery and assessment of this unit.

For Outcomes 1, 2 and 3, learners should provide the following evidence under closed-book conditions:

- ◆ Identification of the four features which make up the Temporomandibular joint.
- ◆ Identification of the facial muscles and facial bones.
- ◆ Identification of the anatomical features of the edentulous oral cavity.
- ◆ Explain why the anatomical features identified are significant in the construction of a dental appliance.
- ◆ Correctly state eruption dates of deciduous and permanent human dentition.
- ◆ Identify the seven tissues that make up of basic tooth structure and morphology of permanent and deciduous teeth.



National unit support notes

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Unit support notes are offered as guidance and are not mandatory.

While the exact time allocated to this unit is at the discretion of the centre, the notional design length is 20 hours.

Guidance on the content and context for this unit

This introductory unit forms part of the NC in Dental Technology at SCQF level 6. This unit will develop the learner's knowledge and understanding of basic dental anatomy relating to the hard and soft tissue of the oral cavity and also the terminology used in industry. Broader learning should include how the teeth are charted for the purpose of understanding specific notation on dental prescriptions.

To provide context, it may be beneficial to discuss industry constraints, eg timescales and costs, adherence to prescriptions and safe working practices. Learners can be signposted to relevant aspects of the following guidance for further information on these topics:

- ◆ Medicines and Healthcare Regulatory Agency (MHRA)
- ◆ Health and Safety at Work Act

Outcome 1 provides learners with the underpinning knowledge of dental anatomy and where applicable, its significance in the construction of a dental appliance.

Temporo Mandibular Joint

- ◆ Glenoid fossa
- ◆ Head of the condyle
- ◆ Articular Tubercle
- ◆ Direction of movement

Facial Muscles

- ◆ Temporalis
- ◆ Masseter
- ◆ Medial and lateral pterygoids
- ◆ Buccinator
- ◆ Orbicularis Oris
- ◆ Modiolus
- ◆ Zygomaticus
- ◆ Levator Labii Superioris
- ◆ Depressor Labii Inferioris
- ◆ Caninus (Levator Anguli Oris)
- ◆ Depressor Anguli oris
- ◆ Traiangularis
- ◆ Risorius

National unit support notes (cont)

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Facial Bones

- ◆ Nasal bone
- ◆ Lacrimal bone
- ◆ Zygomatic Bone
- ◆ Maxilla
- ◆ Mandible

Outcome 2 provides learners with the underpinning knowledge of dental anatomy specifically of the oral cavity and where applicable its significance in the construction of a dental appliance.

Anatomical features of the edentulous oral cavity

- ◆ Alveolar Ridge
- ◆ Alveolar socket
- ◆ Fraenal Attachments
- ◆ Sulcus
- ◆ Tuberosities
- ◆ Hard palate
- ◆ Incisive Papilla
- ◆ Incisive foramen
- ◆ Soft Palate
- ◆ Torus Palatinus
- ◆ Palatine Foveae
- ◆ Rugae
- ◆ Hamular Notch
- ◆ Retromolar Pads
- ◆ The Tongue

Outcome 3 provides learners with the underpinning knowledge of tooth eruption, tooth structure and dental morphology.

Tooth eruption

- ◆ Deciduous eruption dates
- ◆ Permanent eruption dates

Tooth structure

- ◆ Enamel
- ◆ Dentine
- ◆ Pulp
- ◆ Gingiva
- ◆ Periodontal Ligament
- ◆ Cementum
- ◆ Blood and Nerve supply

Tooth Morphology

- ◆ Types of teeth to include Incisor, cuspid, pre molar and molar
- ◆ Surfaces of a tooth to include, labial, buccal, palatal, incisal, mesial, distal, occlusal and root

National unit support notes (cont)

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Guidance on approaches to delivery of this unit

The learning and teaching of dental anatomy is most effective when set in a relevant context, eg by making reference to the applications of the appliances in real life situations. There is scope for integration with other units, eg:

- ◆ *Dental Care Professional: Fitness to Practice*
- ◆ *Dental Materials: an Introduction*
- ◆ *Dental Cast Production: an Introduction*
- ◆ *Dental Custom Trays*

Learning and teaching approaches can include lectures, practical demonstrations, group work and individual exercises.

Guidance on approaches to assessment of this unit

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

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

Assessment may be paper based or e-assessment and where possible designed to allow integration of assessment of knowledge from other relevant units.

An appropriate assessment method for Outcome 1 and 2 could be a range of diagrams to be labelled correctly, set under closed-book conditions submitted alongside an explanation of the significance of specific anatomical features in the construction of an appliance.

Outcome 3 may be assessed under closed-book conditions to include a range of diagrams to be labelled correctly and visual identification of individual human teeth.

Opportunities for e-assessment

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

National unit support notes (cont)

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Opportunities for developing Core and other essential skills

There will be opportunities to develop aspects of the Core Skills in Communication (Oral and Written skills) and *Information and Communication Technology (ICT)* (Accessing Information), *Numeracy* (Graphical Information, Using Number — Measuring and Calculation), *Working with Others* (Working Co-operatively with Others) and *Problem Solving* (Critical Thinking) throughout this unit.

There may also be opportunities to develop broader transferable skills which contribute to employability:

- ◆ Time management and organisational skills — through working to deadlines, punctuality, record keeping
- ◆ Sustainability — through consideration of the use of resources, recycling and waste
- ◆ Specific technical skills through the development of knowledge of dental anatomy
- ◆ interpersonal skills such as listening, teamwork and study skills
- ◆ personal development, eg self-confidence and self-motivation

History of changes to unit

Version	Description of change	Date

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General information for learners

Unit title: Dental Anatomy: an Introduction (SCQF level 6)

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

This unit has been designed to develop your knowledge and understanding of oral and facial anatomy related to dental technology. You will focus on dental anatomy and tooth eruption.

It is an introductory unit which forms part of the NC in Dental Technology at SCQF level 6 and is suitable for trainee Dental Technicians.

There are three outcomes to complete;

- 1 Identify the Oro-facial structures.
- 2 Outline the anatomical features of the edentulous oral cavity.
- 3 Outline growth patterns and development of human dentition.

Assessment methods are varied and may include set question papers including labelling of diagrams and answering questions.

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- ◆ Personal development, eg self-confidence and self-motivation.