

T Level Technical Qualification in Health

Occupational specialism assessment (OSA)

Dental Nursing

**Assignment 4 - Objective structured clinical examination
(OSCE)**

Mark scheme

v2.0: Specimen assessment materials
23 April 2025
603/7066/X

Internal reference: HLTH-0021-02

T Level Technical Qualification in Health Occupational specialism assessment (OSA)

Dental Nursing

Mark scheme

Assignment 4 - Objective structured clinical examination (OSCE)

Contents

About this document	3
Assessor instructions	4
General guidelines	4
Guidelines for using extended response marking grids	4
Station 1: mixing alginate	6
Station 2: medical emergency	9
Station 3: set up for endodontics (root canal treatment)	12
Station 4: extraction post-operative instructions	16
Station 5: local decontamination unit (LDU) zoning flow	20
Station 6: zinc polycarboxylate mix	24
Station 7: clinical and non-clinical waste	26
Station 8: dietary advice	29
Station 9: charting using Palmer notation	32
Station 10: medical history update	36
Performance outcome mapping	38
Document information	40
Change History Record	40

About this document

This mark scheme has been written by the assessment writer and refined, alongside the relevant tasks, by a panel of subject experts through the external assessment writing process and at standardisation meetings.

The purpose of this mark scheme is to give you:

- examples and criteria of the types of observable actions expected from a student
- information on how individual marks are to be awarded
- the allocated performance outcomes and total marks for each task

SPECIMEN

Assessor instructions

General guidelines

You must apply the following marking guidelines to all the observations you assess throughout the marking period. This is to ensure fairness to all students, who must receive the same treatment. You must mark the first student in exactly the same way as you mark the last.

The mark scheme must be referred to throughout the entirety of each observation. You should familiarise yourself with the Indicative content and the levels of response descriptors before each observation and then use the mark scheme as a checklist in real-time, while the student completes the tasks at each OSCE station. Furthermore, you must ensure that you apply the mark scheme consistently to all observations you assess throughout the entire marking period. Do not change your approach to marking once you have been standardised.

Reward students positively giving credit for what they have demonstrated, rather than what they might have omitted. The only exception to this is if a student omits a key safety requirement that is essential for the required action within a given task. Additionally, some parts of the observation may include steps which specifically assess a student's ability to demonstrate skills safely. As a result, there may be some instances where a student should be automatically placed in the limited band if they demonstrate a particular step unsafely. This information will be signposted as part of the Indicative content.

- utilise the whole mark range and always award full marks when the response merits them
- be prepared to award 0 marks if the student's response has no creditworthy material
- the marks awarded for each observation should be clearly and legibly recorded
- if you are in any doubt about the application of the mark scheme, you must consult with your internal quality assurer.

Guidelines for using extended response marking grids

Extended response marking grids have been designed to award a student's response holistically and should follow a best-fit approach. The grids are broken down into levels, with each level having an associated descriptor indicating the performance at that level.

When determining a level, you should use a bottom-up approach. If the observable actions meet all the descriptors in the lowest level, you should move to the next one, and so on, until the observable actions match the level descriptor. Remember to look at the overall quality of the observable actions and reward students positively, rather than focussing on small omissions. If the observable actions cover aspects at different levels, you should use a best-fit approach.

When determining a mark, your decision should be based on the quality of the observable actions in relation to the descriptors. Standardisation and exemplar materials will help you with determining a mark. You will be able to use exemplar student responses to compare to live responses, to decide if it is the same, better or worse.

You are reminded that the Indicative content provided under the marking grid is there as a guide, and therefore you must credit any other suitable responses a student may produce. It is not a requirement either that students must cover all of the Indicative content to be awarded full marks.

Performance outcomes

This assessment requires students to demonstrate the following:

PO1	Carry out a range of dental procedures to support dental professionals at 'chairside'
PO2	Provide factual information and up to date advice to help patients to maintain and improve their oral health
PO3	Accurately record patients' dental information to contribute to their treatment and dental care on dental charts, using technology where appropriate
PO4	Prepare, mix and handle filling and impression material in an appropriate and timely way

Station 1: mixing alginate

(9 marks)

Knowledge	PO4: Prepare, mix and handle filling and impression material in an appropriate and timely way	K4.1 K4.7	3 marks
Skills	PO4: Prepare, mix and handle filling and impression material in an appropriate and timely way	S4.8 S4.9 S4.10	6 marks

Indicative content

K4.1 How to minimise waste when preparing, mixing and handling impression materials:

- by adhering to the mixing times, working times and setting times of the specific material, in accordance with manufacturers' instructions
- by checking required size of filling or alginate with dental professional

K4.7 How to safely dispose of filling and impression materials:

- in accordance with workplace and manufacturers' instructions:
 - all unused materials must be disposed of in clinical waste, with the following exceptions: amalgam - amalgam waste
- unused local anaesthetic - cytotoxic waste

S4.8 Comply with all health and safety requirements in the preparation of filling and impression materials, including:

- selecting the appropriate PPE prior to preparing any materials

S4.9 Follow all guidelines and mechanisms for the prevention of infection in the preparation of filling and impression materials, including:

- wearing PPE appropriately whilst preparing materials
- only using sterilised metal spatulas when mixing
- ensuring all mixing equipment or surfaces are disinfected

S4.10 Prepare, mix and handle the full range of dental filling and impression materials in line with manufacturers' guidance:

- accurately mixing the correct proportion of filling and impression materials
- adhering to the mixing times, working times and setting times
- selecting the correct shade of composite

Observable actions:

- select and apply appropriate PPE
- ensure surfaces are disinfected
- shaking/inverting of alginate container before commencing

- fill up measuring scoop, level off with spatula and add correct number of scoops to the bowl (avg. 2)
- use measuring cup and fill with room temp water, scoops of water = scoops of alginate
- sterilisation of equipment - spatulas when mixing - a sterilised spatula should be used for the initial mix then the spatula can be disinfected between mixes after that
- correct technique (spatulating/vigorously) mixing to create a bubble free creamy consistency, ready to be loaded into the tray
- correct mixing time of 2 to 3 minutes is applied
- an accurate mix has been achieved
- wipe away excess material and clean spatula
- dispose of excess impression material in a clinical bag
- disinfect spatula with a clean antibacterial wipe after each mix

Note: the student is required to show you their mix once they have confirmed they are happy with it. At this point, you must check the mix for accurate consistency.

A second mix of alginate may be attempted if the student is dissatisfied with the first mix.

The student should not be penalised for a second attempt at a mix of alginate but be rewarded for identifying that the mix is not right.

Marking bands

Band	K4.1 How to minimise waste when preparing, mixing and handling impression materials K4.7 How to safely dispose of filling and impression materials		S4.8 Comply with all health and safety requirements in the preparation of filling and impression materials S4.9 Follow all guidelines and mechanisms for the prevention of infection in the preparation of filling and impression materials		S4.10 Prepare, mix and handle the full range of dental filling and impression materials in line with manufacturers' guidance	
	Mark	Descriptor	Mark	Descriptor	Mark	Descriptor
3	3	Excellent knowledge and understanding that is fully accurate and sustained throughout.	3	Excellent demonstration of skill that is highly effective and fully accurate throughout.	3	Excellent demonstration of skill that is highly effective and fully accurate throughout.
2	2	Good knowledge and understanding that is mostly accurate and sustained throughout.	2	Good demonstration of skill that is mostly effective and mostly accurate throughout.	2	Good demonstration of skill that is mostly effective and mostly accurate throughout.
1	1	Reasonable knowledge and understanding that is in some parts accurate and sustained throughout.	1	Reasonable demonstration of skill following some guidelines and mechanisms that has some effectiveness and accuracy throughout.	1	Reasonable demonstration of skill following some guidelines and mechanisms that has some effectiveness and accuracy throughout.
0	0	Limited knowledge and understanding that is minimally accurate and sustained throughout.	0	Limited demonstration of skill that has minimal effectiveness and accuracy .	0	Limited demonstration of skill that has minimal effectiveness and accuracy .
Assessor judgement and notes:						

Station 2: medical emergency

(6 marks)

Knowledge	PO1: Carry out a range of dental procedures to support dental professionals at 'chairside'	K1.57	6 marks
Skills	PO1: Carry out a range of dental procedures to support dental professionals at 'chairside'	S1.94 S1.95	

Indicative content

K1.57 Actions that can be carried out by a dental nurse in the event of a medical emergency:

- performing treatment within limits of own competence:
 - fainting:
 - lie patient on back
 - elevate legs
 - loosen tight clothing
 - check pulse and blood pressure
 - retrieving medical emergency drugs, if necessary

S1.94 Accurately assess a medical emergency:

- conduct a survey of the scene to identify:
 - potential hazards and/or risks
 - cause of injury, if appropriate
 - resources available to deal with the medical emergency
- conduct a primary assessment of the patient to assess (Danger, Response, Airway, Breathing and Circulation (DRABC))
- identify first aid response required for the medical emergency (for example, CPR)
- identify additional assistance required (for example, ambulance)

S1.95 Manage and support the dental team in managing a medical emergency, by:

- managing an instance of a patient fainting:
 - lie patient on back and elevate legs
 - loosen any tight clothing
 - check patient pulse and blood pressure
- seeking help from registered first aider, when required

Observable actions:

- accurate diagnosis of medical emergency
- correct selection of equipment required
- clear demonstration of steps required:

- excellent communication with colleagues
- unconscious - lay patient flat on the ground or flat in the dental chair and raise legs above head
- remove all objects that are around patient's airways
- shout out for help
- ask the dentist to retrieve oxygen while you stay with the patient
- patient regains conscious - sit forward and place head downwards
- deliver a fresh air flow if accessible via window/door
- offer a cup of water

SPECIMEN

Marking bands

Band	S1.94 Accurately assess a medical emergency		K1.57 Actions that can be carried out by a dental nurse in the event of a medical emergency S1.95 Manage and support the dental team in managing a medical emergency	
	Mark	Descriptor	Mark	Descriptor
3	3	Excellent demonstration of skill that is highly effective and fully accurate throughout.	3	Excellent demonstration of skill that is highly effective and fully accurate throughout.
2	2	Good demonstration of skill that is mostly effective and mostly accurate throughout.	2	Good demonstration of skill that is mostly effective and mostly accurate throughout.
1	1	Reasonable demonstration of skill following some guidelines and mechanisms that has some effectiveness and accuracy throughout.	1	Reasonable demonstration of skill following some guidelines and mechanisms that has some effectiveness and accuracy throughout.
0	0	Limited demonstration of skill that has minimal effectiveness and accuracy .	0	Limited demonstration of skill that has minimal effectiveness and accuracy .
Assessor judgement and notes:				

Station 3: set up for endodontics (root canal treatment)

(6 marks)

Knowledge	PO1: Carry out a range of dental procedures to support dental professionals at 'chairside'	K1.40	3 marks
Skills	PO1: Carry out a range of dental procedures to support dental professionals at 'chairside'	S1.82	3 marks

Indicative content

K1.40 A range of routine and acute primary dental care procedures provided by the dental team, including the instruments and materials used for each procedure:

- endodontics treatment - used to treat an infected root canal with the intention of saving the tooth:
 - instruments: mirror, probe, tweezers, flat plastic, ball burnisher, amalgam plugger, dental excavator, local anaesthetic, syringe, single use endodontics files, slow and fast handpiece and burs, Gates Glidden, reamers, barbed broach, endodontic ruler, rubber dam kit
 - materials: paper points, gutta-percha, x-ray films, temporary dressing material

S1.82 Select correct instruments and materials required for all stages during general chairside procedures, including:

- endodontics treatment

Observable actions:

- students will place the following correct instruments and materials from table 1 to table 2:
 - instruments and equipment:
 - mirror
 - probe
 - tweezer
 - flat plastic
 - ball burnisher
 - amalgam plugger
 - dental excavator
 - Wards Carver
 - local anaesthetic
 - Syringe
 - matrix band and holder
 - single use endodontic file
 - slow and fast handpiece and burs
 - rubber dam kit
 - file holder

- Gates Glidden
- Reamers/files
- barbed broach
- endodontic ruler
- monojet irrigation syringe
- measuring gauge
- apex locator
- materials:
 - paper points
 - gutta-percha points
 - temporary dressing material
 - hypochlorite/chlorohexidine
 - spiral paste filler
 - finger spreader
 - antiseptic paste (Iedermix)
 - lubricant gel (glyde)
 - sealing cement
 - x-ray holder
 - Temp-Bond cement

Students will identify that the following instruments and materials are not needed.

- extraction forceps
- light bodied impression material
- sutures
- luting agent
- calcium hydroxide
- bitewing film
- Coupland's elevators
- CPITN probe
- Briault probe
- diamond bur
- TST strip
- Alginate
- soft wax
- processing solution
- amalgam pot

Note: the moving of objects is not required to be done in the order that they would be used.

SPECIMEN

Marking bands

Band	K1.40 A range of routine and acute primary dental care procedures provided by the dental team, including the instruments and materials used for each procedure		S1.82 Select correct instruments and materials required for all stages during general chairside procedures	
	Mark	Descriptor	Mark	Descriptor
3	3	Excellent knowledge and understanding that is fully accurate and sustained throughout.	3	Excellent demonstration of skill that is highly effective and fully accurate throughout.
2	2	Good knowledge and understanding that is mostly accurate and sustained throughout.	2	Good demonstration of skill that is mostly effective and mostly accurate throughout.
1	1	Reasonable knowledge and understanding that is in some parts accurate and sustained throughout.	1	Reasonable demonstration of skill that has some effectiveness and accuracy throughout.
0	0	Limited knowledge and understanding that is minimally accurate and sustained throughout.	0	Limited demonstration of skill that has minimal effectiveness and accuracy .
Assessor judgement and notes:				

Station 4: extraction post-operative instructions

(12 marks)

Knowledge	PO2: Provide factual information and up to date advice to help patients to maintain and improve their oral health	K2.9	3 marks
Skills	PO1: Carry out a range of dental procedures to support dental professionals at “chairside”	S1.83	3 marks
Skills	PO2: Provide factual information and up to date advice to help patients to maintain and improve their oral health	S2.15 S2.16 S2.17	6 marks

Indicative content

K2.9 The roles and responsibilities of the dental nurse when supporting the dental team in patient management:

- providing appropriate advice (for example, providing preventative advice)

S1.83 Monitor, support and reassure patients through effective communication and behavioural techniques, by:

- using appropriate communication methods (for example, spoken, written and electronic methods)
- tailoring language appropriate to the audience (for example, not using technical terms)
- using reassuring language (verbal and non-verbal)

S2.15 Communicate appropriate advice to patients on how to maintain and improve oral health, by:

- promoting key messages including:
 - the ‘twice a day’ message
 - the use of fluoride toothpaste
 - interdental cleaning aids and disclosing solutions/tablet
 - the ‘spit don’t rinse’ message
 - the importance of regular oral health assessments
- using oral health information and visual aids to support communication (for example, demonstrating basic tooth brushing and interdental cleaning, making use of leaflets and other supporting materials)
- tailoring feedback to individual patients (for example, adults, children and young people, older people and people with additional needs)
- listening actively to patients’ questions and responding appropriately

S2.16 Provide information on the health risks of diet, drugs, alcohol and smoking on oral and general health:

- tailored to the patient in a style that reflects the purpose
- in the appropriate format (for example, making use of leaflets and other supporting materials)
- using appropriate behavioural change techniques (for example, tailoring language appropriate to audience)
- listening actively to patients’ questions and responding appropriately

S2.17 Provide basic dietary advice that is relevant to maintaining and improving oral health, including:

- asking appropriate questions to establish current lifestyle and dietary habits
- providing advice on hidden sugars
- providing advice on how to reduce sugar intake (for example, via diet sheets)
- providing advice on the importance of good hydration and nutrition
- listening actively to patients' questions and responding appropriately

Observable actions:

The student confirms with the patient that they are happy to have post-operative instructions and information given to them.

The student sits with the patient and talks through the post-operative instructions in a comfortable, informal manner.

The student must explain:

- it is normal to experience some pain, bruising or swelling after extractions
- painkillers/anti-inflammatories are to be taken, if required, such as ibuprofen or paracetamol (not aspirin, as it thins blood)
- no alcohol for 24 hours
- no smoking for 24 hours
- no exercise for 24 hours
- no hot drinks for 24 hours
- no spitting or rinsing for 24 hours
- after 24 hours to use warm water and salt after every meal for up to 1 week
- if bleeding does occur, to bite down on gauze until bleeding has stopped

The student must:

- give the emergency contact number if any issues do occur
- ask the patient if they have any questions
- answer any questions or concerns the patient may have
- direct the patient to their dentist if they have questions that they cannot answer
- provide the information in a clear, friendly way using non-jargon language

Marking bands

Band	K2.9 The roles and responsibilities of the dental nurse when supporting the dental team in patient management		S1.83 Support and reassure patients through effective communication and behavioural techniques		S2.15 Communicate appropriate advice to patients on how to maintain and improve oral health		S2.16 Provide information on the health risks of diet, drugs, alcohol and smoking on oral and general health S2.17 Provide basic dietary advice that is relevant to maintaining and improving oral health	
	Mark	Descriptor	Mark	Descriptor	Mark	Descriptor	Mark	Descriptor
3	3	Excellent knowledge and understanding that is fully accurate and sustained throughout.	3	Excellent demonstration of skill that is highly effective and fully accurate throughout.	3	Excellent demonstration of skill that is highly effective and fully accurate throughout.	3	Excellent demonstration of skill that is highly effective and fully accurate throughout.
2	2	Good knowledge and understanding that is mostly accurate and sustained throughout.	2	Good demonstration of skill that is mostly effective and mostly accurate throughout.	2	Good demonstration of skill that is mostly effective and mostly accurate throughout.	2	Good demonstration of skill that is mostly effective and mostly accurate throughout.
1	1	Reasonable knowledge and understanding that is in some parts accurate and sustained throughout.	1	Reasonable demonstration of skill following some guidelines and mechanisms that has some effectiveness and accuracy throughout.	1	Reasonable demonstration of skill following some guidelines and mechanisms that has some effectiveness and accuracy throughout.	1	Reasonable demonstration of skill following some guidelines and mechanisms that has some effectiveness and accuracy throughout.
0	0	Limited knowledge and understanding that is minimally accurate and sustained throughout.	0	Limited demonstration of skill that has minimal effectiveness and accuracy .	0	Limited demonstration of skill that has minimal effectiveness and accuracy .	0	Limited demonstration of skill that has minimal effectiveness and accuracy .

Band	K2.9 The roles and responsibilities of the dental nurse when supporting the dental team in patient management		S1.83 Support and reassure patients through effective communication and behavioural techniques		S2.15 Communicate appropriate advice to patients on how to maintain and improve oral health		S2.16 Provide information on the health risks of diet, drugs, alcohol and smoking on oral and general health S2.17 Provide basic dietary advice that is relevant to maintaining and improving oral health	
	Mark	Descriptor	Mark	Descriptor	Mark	Descriptor	Mark	Descriptor
Assessor judgement and notes:								

Station 5: local decontamination unit (LDU) zoning flow

(9 marks)

Knowledge	PO1: Carry out a range of dental procedures to support dental professionals at 'chairside'	K1.14	3 marks
Skills	PO1: Carry out a range of dental procedures to support dental professionals at 'chairside'	S1.70 S1.72	6 marks

Indicative content

K1.14 The key stages of the decontamination process:

- inspection: a visual inspection for cleanliness, wear and damage, taking place at key stages within the decontamination process (pre- and post-sterilisation cleaning and after sterilisation)
- pre-sterilisation cleaning (disinfection): an essential prerequisite for sterilisation which will reduce the risk of transmission of pathogens
- sterilisation: the use of an autoclave to kill pathogens
- storage: to protect the instruments against the possibility of recontamination by pathogens, stored in suitable sealed view pack and dated to ensure the instruments are used in date order and before expiry

S1.70 Carry out instrument, handpiece and surface inspection and pre-sterilisation cleaning, in accordance with regulations, provisions and knowledge of good practice in the dental environment:

- instruments:
 - placing any dirty instruments and trays into the appropriately labelled and sealed box
 - transporting the sealed box to a decontamination room
 - wearing heavy duty gloves, eye protection and disposable plastic apron when in the decontamination room and when transferring items from box to sink
 - visually inspecting the items with a magnifying light to ensure they are not broken and there is no gross contamination
 - manually cleaning items by immersing in water, using a separate sink for rinsing
 - where available, placing items in an ultrasonic bath or washer disinfectant
 - re-inspecting the items to ensure no damage or contamination, and re-processing if necessary
 - placing instruments onto metal tray and loading autoclave as per manufacturers' instructions
 - packaging and labelling (including date) before storing appropriately
 - checking autoclave log to ensure sterilisation has been completed
- handpieces:
 - placing any dirty handpieces into the appropriately labelled and sealed box
 - transporting the sealed box to a decontamination room
 - wearing heavy duty gloves, eye protection and disposable plastic apron when in the decontamination room

- visually inspecting the items using a magnifying light to ensure they are not broken and there is no gross contamination
- using dental lubrication unit to internally cleanse and oil items
- re-inspecting the items to ensure no damage or contamination, and re-processing if necessary
- placing items into autoclave as per manufacturers' instructions
- packaging, labelling (including date) and storing appropriately
- checking autoclave log to ensure sterilisation has been completed
- surfaces:
 - using disinfectant or detergent to clean all surfaces touched or subject to aerosol generation droplets between patients

S1.72 Follow the established guidelines for surgery zoning through demonstrating the use of clean and dirty areas in a dental setting, by:

- wearing PPE appropriate to the procedure (for example, cuffed glove gown, mask, eye protection, gloves, apron, head coverings)
- identifying clean and dirty zones to avoid cross contamination
- maintaining the clean and dirty zones appropriately
- ensuring all sterile clean instruments are placed in a clean area
- ensuring all used instruments are placed in a dirty area
- following established guidelines if cross contamination occurs

Observable actions:

- apply all PPE (apron, mask, visor and heavy duty gloves) in correct order
- place contaminated instruments in dirty zone
 - remove any debris or blood from the instruments manually with cold water and a scrubbing brush in the sink that is labelled instrument washing sink
 - rinse instruments under cold water to remove any extra debris in a separate sink labelled instrument rinsing sink
- a visual inspection for cleanliness, wear and damage:
 - inspect instruments under the illuminated magnifier glass
- pre-sterilisation cleaning (disinfection):
 - place instruments into washer disinfectant
- change PPE gloves (check apron for no visible debris)
- remove instruments from washer disinfectant
- sterilisation of instruments:
 - place instruments non-bagged into autoclave
- remove PPE in correct order (gloves (not touching outside of gloves), apron, mask, eyewear)
- apply new PPE gloves

- ensure all sterile, clean instruments are placed in clean area
- correct storage of instruments:
 - remove instruments from autoclave, place in sterile bag and label
 - check the bag is sealed correctly

SPECIMEN

Marking bands

Band	K1.14 The key stages of the decontamination process		S1.70 Carry out instrument, handpiece and surface inspection and pre-sterilisation cleaning, in accordance with regulations, provisions and knowledge of good practice in the dental environment		S1.72 Follow the established guidelines for surgery zoning through demonstrating the use of clean and dirty areas in a dental setting	
	Mark	Descriptor	Mark	Descriptor	Mark	Descriptor
3	3	Excellent knowledge and understanding that is fully accurate and sustained throughout.	3	Excellent demonstration of skill that is highly effective and fully accurate throughout.	3	Excellent demonstration of skill that is highly effective and fully accurate throughout.
2	2	Good knowledge and understanding that is mostly accurate and sustained throughout.	2	Good demonstration of skill that is mostly effective and mostly accurate throughout.	2	Good demonstration of skill that is mostly effective and mostly accurate throughout.
1	1	Reasonable knowledge and understanding that is in some parts accurate and sustained throughout.	1	Reasonable demonstration of skill following some guidelines and mechanisms that has some effectiveness and accuracy throughout.	1	Reasonable demonstration of skill following some guidelines and mechanisms that has some effectiveness and accuracy throughout.
0	0	Limited knowledge and understanding that is minimally accurate and sustained throughout.	0	Limited demonstration of skill that has minimal effectiveness and accuracy .	0	Limited demonstration of skill that has minimal effectiveness and accuracy .
Assessor judgement and notes:						

Station 6: zinc polycarboxylate mix

(6 marks)

Skills	PO4: Prepare, mix and handle filling and impression material in an appropriate and timely way	S4.8 S4.9 S4.10	6 marks
---------------	--	--	----------------

Indicative content

S4.8 Comply with all health and safety requirements in the preparation of filling and impression materials, including:

- selecting the appropriate PPE prior to preparing any materials

S4.9 Follow all guidelines and mechanisms for the prevention of infection in the preparation of filling and impression materials, including:

- wearing PPE appropriately whilst preparing materials
- only using sterilised metal spatulas when mixing
- ensuring all mixing equipment or surfaces are disinfected

S4.10 Prepare, mix and handle dental filling and impression materials:

- accurately mixing the correct proportion of filling and impression materials
- adhering to the mixing times, working times and setting times

Observable actions:

- apply PPE (apron, mask, visor, gloves)
- shake powder before opening
- lightly fill the scoop with powder - do not compress against wall of the bottle
- strike off excess powder with a spatula blade
- dispense onto glass slab
- section into increments
- hold liquid bottle vertically and squeeze gently to dispense 2 liquid drops onto slab
- start to mix in the increments of powder to liquid using spatula in circular motions
- once happy with consistency of mix, collect cement into an area on the slab and show examiner
- wipe down spatula and slab with an antibacterial wipe and remove all cement before setting
- dispose of all unused powder or liquid
- remove PPE (gloves, apron, visor, mask)

Marking bands

Band	S4.8 Comply with all health and safety requirements in the preparation of filling and impression materials S4.9 Follow all guidelines and mechanisms for the prevention of infection in the preparation of filling and impression materials		S4.10 Prepare, mix and handle the full range of dental filling and impression materials	
	Mark	Descriptor	Mark	Descriptor
3	3	Excellent demonstration of skill that is highly effective and fully accurate throughout.	3	Excellent demonstration of skill that is highly effective and fully accurate throughout.
2	2	Good demonstration of skill that is mostly effective and mostly accurate throughout.	2	Good demonstration of skill that is mostly effective and mostly accurate throughout.
1	1	Reasonable demonstration of skill following some guidelines and mechanisms that has some effectiveness and accuracy throughout.	1	Reasonable demonstration of skill following some guidelines and mechanisms that has some effectiveness and accuracy throughout.
0	0	Limited demonstration of skill that has minimal effectiveness and accuracy .	0	Limited demonstration of skill that has minimal effectiveness and accuracy .
Assessor judgement and notes:				

Station 7: clinical and non-clinical waste

(9 marks)

Knowledge	PO1: Carry out a range of dental procedures to support dental professionals at 'chairside'	K1.21	3 marks
Skills	PO1: Carry out a range of dental procedures to support dental professionals at 'chairside'	S1.68 S1.69	6 marks

Indicative content

S1.68 Adhere to guidelines and regulations in respect of the use of personal protective equipment (PPE) and appropriate dress in the clinical environment, by:

- putting on and removing PPE in the correct order:
 - putting on order: uniform, apron, mask, eye protection, gloves
 - removal order: gloves, apron, eye protection, mask, uniform

K1.21 How to comply with waste segregation and classification:

- sharps box: clinical waste (for example, used needles)
- orange bag: infectious clinical waste (for example, used gauze)
- rigid leak proof container: liquid wastes (for example, out of date medicines and used developer and fixer waste)
- yellow bag with black stripe: offensive or hygiene waste (for example, used PPE, tissue)
- amalgam waste pot: hazardous waste (for example, teeth that contain amalgam)
- black bag: domestic waste (for example, kitchen and staffroom waste)

S1.69 Carry out hand hygiene at the key stages to minimise the spread of infection, with reference to the Health Technical Memorandum (HTM) 01-05: decontamination in primary care dental practices, including:

- hand washing
- drying of hands
- skin care

Observable actions:

Students will select and apply the following PPE:

- putting on order: uniform, apron, mask, eye protection, gloves

Students will place the following waste items into the following correct waste containers:

- non-clinical bin with non-clinical black bin bag:
 - disposable patient cup
 - finished soap bottle
 - empty glove box
 - plastic water bottle

- clinical bin and clinical orange bin bag:
 - PPE: gloves, apron, mask
 - surgery wipes
- yellow sharps box:
 - local aesthetic cartridges
 - suture (in packet)
 - suction filter

The following waste containers will be empty:

- amalgam waste pot
- rigid leak proof container

Students will remove PPE:

- removal order: gloves, apron, eye protection, mask, uniform

Students will complete the following handwashing routine:

- turn on tap using elbow or foot control (prevent contamination of tap)
- wet both hands under running water
- apply antibacterial soap to hands
- rub palm to palm in circle motion
- rub back of each hand with palm and interlaced fingers on each hand
- rub palm to palm with interlaced fingers
- rub with back of fingers to opposing palms with fingers interlocked
- rub each thumb with opposite hand in rotation movement on each side
- rub fingertips on the opposite palm in circular motion
- rub each wrist with opposite hand
- rinse hands with water
- use elbow to turn off tap
- dry thoroughly with an individual use towel

Marking bands

Band	K1.21 How to comply with waste segregation and classification		S1.68 Adhere to guidelines and regulations in respect of the use of personal protective equipment (PPE) and appropriate dress in the clinical environment		S1.69 Carry out hand hygiene at the key stages to minimise the spread of infection, with reference to the Health Technical Memorandum (HTM) 01-05: decontamination in primary care dental practices	
	Mark	Descriptor	Mark	Descriptor	Mark	Descriptor
3	3	Excellent demonstration of skill that is highly effective and fully accurate throughout.	3	Excellent demonstration of skill that is highly effective and fully accurate throughout.	3	Excellent demonstration of skill that is highly effective and fully accurate throughout.
2	2	Good demonstration of skill that is mostly effective and mostly accurate throughout.	2	Good demonstration of skill that is mostly effective and mostly accurate throughout.	2	Good demonstration of skill that is mostly effective and mostly accurate throughout.
1	1	Reasonable demonstration of skill following some guidelines and mechanisms that has some effectiveness and accuracy throughout.	1	Reasonable demonstration of skill following some guidelines and mechanisms that has some effectiveness and accuracy throughout.	1	Reasonable demonstration of skill following some guidelines and mechanisms that has some effectiveness and accuracy throughout.
0	0	Limited demonstration of skill that has minimal effectiveness and accuracy .	0	Limited demonstration of skill that has minimal effectiveness and accuracy .	0	Limited demonstration of skill that has minimal effectiveness and accuracy .
Assessor judgement and notes:						

Station 8: dietary advice

(12 marks)

Knowledge	PO2: Provide factual information and up to date advice to help patients to maintain and improve their oral health	K2.1 K2.5	6 marks
Skills	PO2: Provide factual information and up to date advice to help patients to maintain and improve their oral health	S2.15 S2.17	6 marks

Indicative content

K2.1 A range of common oral conditions, their presentation, causes and evidence-based methods for prevention:

- dental cavities (caries):
 - causes: dental bacterial plaque and sugar
 - methods for prevention: effective toothbrushing twice a day with fluoride toothpaste and other methods of fluoride application, appropriate interdental care, reduction in the frequency and amount of sugar

K2.5 The impact of a range of factors on an individual's oral health:

- sugar in the diet (intrinsic and extrinsic sugars): including dental bacterial plaque, frequencies of intake, hidden sugars and how these lead to decay
- acidic drinks in the diet (for example, carbonated drinks, fruit juices): including the link between dental erosion and tooth sensitivity

S2.15 Communicate appropriate advice to patients on how to maintain and improve oral health, by:

- promoting key messages including:
 - the 'twice a day' message
 - the use of fluoride toothpaste
 - interdental cleaning aids and disclosing solutions/tablet
 - the 'spit don't rinse' message
 - the importance of regular oral health assessments
 - using oral health information and visual aids to support communication (for example, demonstrating basic tooth brushing and inter dental cleaning, making use of leaflets and other supporting materials)
 - tailoring feedback to individual patients (for example, adults, children and young people, older people and people with additional needs)
 - listening actively to patients' questions and responding appropriately.

S2.17 Provide basic dietary advice that is relevant to maintaining and improving oral health, including:

- asking appropriate questions to establish current lifestyle and dietary habits
- providing advice on hidden sugars
- providing advice on how to reduce sugar intake (for example, via diet sheets)
- providing advice on the importance of good hydration and nutrition
- listening actively to patients' questions and responding appropriately

Observable actions:

Explain to the adult that it is imperative to support their young child with good diet advice and guidance to have successful oral health. These steps would be:

- to give the adult a diet tracking sheet and explain its use for tracking what the child is eating - this may be a good indication if the child is having hidden sugars
- explain to the adult that the diet tracking sheet is to record what their child is eating, to help identify any hidden sugars which can lead to dental cavities
- try to avoid high cariogenic (sugar) snacks such as chocolate or sugary snacks (students can demo snacks from equipment)
- identify and demonstrate high cariogenic (sugar) snacks such as chocolate and fizzy pop from the equipment to the adult and patient
- when bad snacks/foods are eaten, they should be limited to mealtimes to keep pH levels neutralised
- explain to the adult that sugary foods and drinks should be limited to mealtimes to keep pH levels neutralised
- explain that if the patient eats snacks at separate times, the pH level in the mouth changes and the patient's teeth are more likely to be under attack from acid causing decay
- inform the adult that if the patient eats snacks at separate times, the pH level in the mouth changes and the patient's teeth are more likely to be under attack from acid causing decay
- to avoid carbonated drinks or confine to mealtimes to keep pH levels neutralised
- recommend the adult avoid giving the patient carbonated drinks or confine to mealtimes to keep pH levels neutralised
- avoid snacks and any juice before bedtime - plain water is sufficient
- recommend plain water for the patient's bedtime, asking them to avoid snacks and juice before bedtime
- discuss good non-cariogenic snacks that do not contain much sugar (students can use snacks from the equipment table)
- identify and demonstrate good non-cariogenic snacks that do not contain any/or less sugar from the equipment to the adult and patient
- inform the adult that they can request sugar-free medicine for their child

Marking bands

Band	K2.1 A range of common oral conditions, their presentation, causes and evidence-based methods for prevention		K2.5 The impact of a range of factors on an individual's oral health		S2.15 Communicate appropriate advice to patients on how to maintain and improve oral health		S2.17 Provide basic dietary advice that is relevant to maintaining and improving oral health	
	Mark	Descriptor	Mark	Descriptor			Mark	Descriptor
3	3	Excellent knowledge and understanding that is fully accurate and sustained throughout.	3	Excellent knowledge and understanding that is fully accurate and sustained throughout.	3	Excellent demonstration of skill that is highly effective and fully accurate throughout.	3	Excellent demonstration of skill that is highly effective and fully accurate throughout.
2	2	Good knowledge and understanding that is mostly accurate and sustained throughout.	2	Good knowledge and understanding that is mostly accurate and sustained throughout.	2	Good demonstration of skill that is mostly effective and mostly accurate throughout.	2	Good demonstration of skill that is mostly effective and mostly accurate throughout.
1	1	Reasonable knowledge and understanding that is in some parts accurate and sustained throughout.	1	Reasonable knowledge and understanding that is in some parts accurate and sustained throughout.	1	Reasonable demonstration of skill following some guidelines and mechanisms that has some effectiveness and accuracy throughout.	1	Reasonable demonstration of skill following some guidelines and mechanisms that has some effectiveness and accuracy throughout.
0	0	Limited knowledge and understanding that is minimally accurate and sustained throughout.	0	Limited knowledge and understanding that is minimally accurate and sustained throughout.	0	Limited demonstration of skill that has minimal effectiveness and accuracy .	0	Limited demonstration of skill that has minimal effectiveness and accuracy .
Assessor judgement and notes:								

Station 9: charting using Palmer notation

(6 marks)

Knowledge	PO3: Accurately record patients' dental information to contribute to their treatment and dental care on dental charts, using technology where appropriate	K3.3	3 marks
Skills	PO3: Accurately record patients' dental information to contribute to their treatment and dental care on dental charts, using technology where appropriate	S3.9	3 marks

Indicative content

K3.3 The correct use of dental terminology in recording:

- number, position and surfaces of teeth
- the health status of the teeth (decayed, missing, filled)
- the periodontal index, to include basic periodontal examination or full periodontal pocket chart
- soft tissue assessment

S3.9 Record dental charting and oral tissue assessment carried out by other registrants:

- recording dental charting using FDI and Palmer notation
- recording the basic periodontal examination
- recording the full periodontal chart
- recording bleeding score
- recording plaque and debris indices scores
- recording soft tissue assessment findings
- recording basic occlusion
- recording all information accurately and precisely, using correct terminology, notation and format

Observable actions:

The recording will state the below script and will be carried out at a realistic speed 2 times. Students will record each of the below using Palmer notation.

The student will complete as follows:

1. Upper right third molar is missing
2. Upper right first molar has a mesial occlusal distal restoration
3. Upper right first premolar tooth requires a porcelain jacket crown
4. Upper right central incisor has a buccal cavity
5. Upper left central incisor has a palatal cavity
6. Upper left canine has a fractured incisal edge and requires treatment
7. Upper left second premolar is missing
8. Upper left first molar requires extraction
9. Lower left third molar tooth is partially erupted
10. Lower left second molar requires a root canal treatment
11. Lower left second premolar is missing
12. Lower left first premolar has drifted distally
13. Lower left lateral incisor has a porcelain veneer
14. Lower right central has a porcelain veneer
15. Lower right first premolar has a mesial restoration and a separate distal cavity
16. Lower right first molar tooth requires a lingual occlusal buccal restoration
17. Lower right second molar has a distal occlusal temporary dressing
18. Lower right third molar tooth has recently been extracted

You must also use the completed charting sheet below for an example of the correct notations.

				PJC			o	o		#					
8	7	6	5	4	3	2	1	1	2	3	4	5	6	7	8
X				●			PV		PV		→	→			PE
)))		o										RF	

Marking bands

Band	K3.3 The correct use of dental terminology in recording		S3.9 Record dental charting and oral tissue assessment carried out by other registrants	
	Mark	Descriptor	Mark	Descriptor
3	3	Excellent knowledge and understanding that is fully accurate and sustained throughout.	3	Excellent demonstration of skill that is highly effective and fully accurate throughout.
2	2	Good knowledge and understanding that is mostly accurate and sustained throughout.	2	Good demonstration of skill that is mostly effective and mostly accurate throughout.
1	1	Reasonable knowledge and understanding that is in some parts accurate and sustained throughout.	1	Reasonable demonstration of skill following some guidelines and mechanisms that has some effectiveness and accuracy throughout.
0	0	Limited knowledge and understanding that is minimally accurate and sustained throughout.	0	Limited demonstration of skill that has minimal effectiveness and accuracy .
Assessor judgement and notes:				

Station 10: medical history update

(6 marks)

Skills	PO3: Accurately record patients' dental information to contribute to their treatment and dental care on dental charts, using technology where appropriate	S3.7 S3.8	6 marks
---------------	--	----------------------------	----------------

Indicative content

S3.7 Contribute to obtaining and recording patient clinical history as part of the dental team, by:

- assisting a patient with filling in their patient clinical history, including medical, social and dental history
- accurately recording and proofreading the information on the patient's record
- reiterating the patient history to a clinician

S3.8 Follow guidelines and requirements for the recording and storing of patient information, by:

- maintaining confidentiality
- ensuring manual records are stored securely (for the relevant amount of time) in a locked, metal, fireproof cabinet
- ensuring only relevant patient information is recorded and stored

Observable actions:

- student to offer, in a friendly manner, to help the patient fill in the medical history form
- student to inform the patient that the medical information taken is private and confidential, will be stored securely and only shared on a need-to-know basis
- student to offer the patient a seat and sit alongside them
- student to correctly tick the medical boxes given by the patient
- student to write the medication in the correct section
- student to complete all information given by the patient
- student unlocks the filing cabinet, places the patient's medical history in their card and relocks the cabinet

Marking bands

Band	S3.7 Contribute to obtaining and recording patient clinical history as part of the dental team		S3.8 Follow guidelines and requirements for the recording and storage of patient information	
	Mark	Descriptor	Mark	Descriptor
3	3	Excellent demonstration of skill that is highly effective and fully accurate throughout.	3	Excellent demonstration of skill that is highly effective and fully accurate throughout.
2	2	Good demonstration of skill that is mostly effective and mostly accurate throughout.	2	Good demonstration of skill that is mostly effective and mostly accurate throughout.
1	1	Reasonable demonstration of skill following some guidelines and mechanisms that has some effectiveness and accuracy throughout.	1	Reasonable demonstration of skill following some guidelines and mechanisms that has some effectiveness and accuracy throughout.
0	0	Limited demonstration of skill that has minimal effectiveness and accuracy .	0	Limited demonstration of skill that has minimal effectiveness and accuracy .
Assessor judgement and notes:				

Performance outcome mapping

OSCE station	PO1	PO2	PO3	PO4	GDC LO	Total marks
1				K4.1, K4.7 (3) S4.8, S4.9 (3) S4.10 (3)		9
2	K1.57 S1.95 (3) S1.94 (3)					6
3	K1.40 (3) S1.82 (3)					6
4	S1.83 (3)	K2.9 (3) S2.15 (3) S2.16, S2.17 (3)				12
5	K1.14 (3) S1.70 (3) S1.72 (3)					9
6				S4.8, S4.9 (3) S4.10 (3)		6
7	K1.21 (3) S1.68 (3) S1.69 (3)					9
8		K2.1 (3) K2.5 (3) S2.15 (3) S2.17 (3)				12
9			K3.3 (3) S3.9 (3)			6
10			S3.7 (3) S3.8 (3)			6

Total marks	33	21	12	15	N/A	81
Total % of marks	40.74%	25.92%	14.81%	18.52%	N/A	100%
Required marks	30-36 marks	16-22 marks	9-15 marks	15-21 marks	N/A	
Required % of marks	37.04-44.44% approx.	19.75-27.16% approx.	11.11-18.52% approx.	18.52-25.93% % approx.		

Document information

Copyright in this document belongs to, and is used under licence from, the Institute for Apprenticeships and Technical Education, © 2022 - 2025

‘T-LEVELS’ is a registered trade mark of the Department for Education.

‘T Level’ is a registered trade mark of the Institute for Apprenticeships and Technical Education.

‘Institute for Apprenticeships & Technical Education’ and logo are registered trade marks of the Institute for Apprenticeships and Technical Education.

The T Level Technical Qualification is a qualification approved and managed by the Institute for Apprenticeships and Technical Education.

NCFE is authorised by the Institute for Apprenticeships and Technical Education to develop and deliver the Technical Qualification.

‘CACHE’ is a registered trade mark of NCFE.

Owner: Head of Assessment Solutions

Change History Record

Version	Description of change	Approval	Date of issue
v1.0	Post approval, updated for publication.		March 2022
v1.1	Rebrand		March 2022
v1.2	Sample added as a watermark	November 2023	22 November 2023
v2.0	Some changes to stems, logo and copyright updated	November 2024	23 April 2025