
Unit Specification

iUHB311 – Creatively colour and lighten hair

Unit reference number: M/617/8094

Level: 3

Guided Learning (GL) hours: 121

Overview

The aim of this unit is to develop learners' knowledge, understanding and skills to combine, adapt and personalise a range of colouring and lightening techniques to creatively achieve a variety of fashion colour and lightening styles.

The use of weaving and colouring techniques based on slicing and block colouring is required, as is the ability to carry out a full head and regrowth application of lightener.

This unit requires learners also to restore depth and tone of colour, neutralise colour tone and to colour resistant hair.

Learners will need to maintain a high level of health, safety and hygiene throughout the unit. Additionally, learners must maintain their personal appearance and demonstrate effective communication and consultation skills.

Learning outcomes

On completion of this unit, learners will:

LO1 Be able to creatively colour and lighten hair

LO2 Understand how health and safety policies and procedures affect colouring and lightening services

LO3 Understand the factors that may influence colouring and lightening services

LO4 Understand the science of colouring and lightening hair

LO5 Understand the tools, equipment, products and techniques used for colouring and lightening services

Unit content

LO1 Be able to creatively colour and lighten hair

Prepare for creative colouring and lightening services

Taught content to include

- Preparation of learners should include:
 - Personal image, ensuring industry standards of dress
 - Clean and hygienic appearance, e.g. avoidance of overpowering odours – tobacco, heavy perfume/aftershave
 - Good communication and listening skills
 - Correct posture with weight evenly balanced
 - Correct personal protective equipment worn
- Preparation of the working area to include:
 - Chair and work area to be clean before the client arrives
 - Chair positioned correctly, including height
 - Adequate work area to allow safe use of electrical equipment, e.g. if using accelerator for processing the colour
 - Products on display to be clean of dust and hair
 - Tools and equipment to be clean and sterilised
 - Electrical equipment to be visually checked before use, e.g. for centres within the United Kingdom, portable appliance testing (PAT) may be required when using electrical equipment
 - All tools and equipment to be positioned for ease of use
- Preparation of the client to include:
 - Clean protective garments for the client
 - Visual checks of client's scalp for signs of cuts, sores, abrasions or infections; check the hair for infestations and suitability of service
 - Removal of obstructive jewellery
 - Check the client record card (where appropriate) for previous services and client history
 - Check all appropriate tests have been undertaken prior to and during the colouring and/or lightening service

Apply safe and hygienic methods of working throughout services

Taught content to include

- Ensure there is sufficient stock, which is used appropriately to minimise the wastage of products
- Ensure products, tools and equipment are correctly handled, stored, clean, readily available and all hygienic precautions are followed to minimise the risk of damage or cross-infection
- Cleanse/sterilise tools and equipment
- Work safely throughout the service to minimise risk, harm or injury to self or others
- Ensure own good posture is maintained throughout the service
- Ensure the client maintains the correct posture and is comfortable throughout the service to avoid a hazard or a risk, e.g. when applying colour or lightening products the client may be required to tilt the head forwards or backwards for certain areas
- Safely mix and apply and follow manufacturers' instructions when using products
- Ensure relevant tests are conducted where appropriate
- Ensure correct own personal protection equipment (PPE) garments are used
- Ensure client has correct personal protective garments
- Minimise the risk of damage to tools and equipment
- Ensure that products are disposed of hygienically and appropriately
- Ensure any drips and/or spillages that fall onto the client's skin are immediately cleaned up
- Minimise the risk of harm or injury to themselves and others when using products and electrical equipment
- Ensure hygienic working practices throughout the service including own personal hygiene, e.g. eliminating offensive body odour or strong smell of tobacco
- Make effective use of their working time e.g. ensuring the processing time is correctly adhered to according to manufacturer's instructions

Consult with clients about services and outcomes of tests

Taught content to include

- Undertake appropriate tests and recording outcomes to include:
 - Skin/sensitivity test
 - Elasticity test
 - Porosity test
 - Incompatibility test
 - Test cutting/colour test
 - Development test
- Assess the hair conditions for contra-indications and suitability for colour and/or lightening services to include:
 - Hair classification
 - Hair characteristics
 - Hair elasticity, porosity, texture, density, condition, growth patterns and hair length
- Assess the scalp condition to assess for contra-indications and the suitability of the colouring and/or lightening service to include:
 - Cuts, sores and abrasions
- Consulting and confirming with the client before the service commences to agree the chosen style, desired look and finished colour and/or lightening effect
- Explaining each stage of the colouring and/or lightening service to the client
- Agreeing products, process and possible equipment to be used
- Checking throughout the service to meet the client's needs
- Use visual aids where appropriate, e.g. colour swatches placed in the hair to show the client the possible effect

Confirm with clients the desired effect

Taught content to include

- Discussing client's needs and requirements
- Discussing limitations or adaptations that may be required, e.g. a cutting/restyle service to enhance the colour and/or lightening effects
- The importance of informing the client of the likely cost, duration and expected outcome of the service

Carry out a suitable questioning process with the client for the service

Taught content to include

- Understanding the client's requirements and expectations of the chosen colour and/or lightened hairstyle
- The costs related to maintenance of colouring and/or lightening services (if appropriate)
- To ensure the client understands the process
- To provide the client the opportunity to ask questions (where necessary)
- To ensure the client is comfortable
- To gain information on how they maintain their hair, lifestyle and commitment to the colour and/or lightened hairstyle
- To ensure and confirm that the client's expectations are met for the colour and/or lightened finish
- The legal significance of client questioning and the recording of client's responses to questioning
- The importance of informing the client of the likely cost, duration and expected outcome of the service
- The importance of confirming client's satisfaction

Select suitable products, tools and equipment for the colour and lightening service

Taught content to include

- Products:
 - Preparing products in advance, e.g. colouring and lightening products
 - Appropriate strength hydrogen peroxide
 - Barrier cream (where required)
- Tools:
 - Personal protective equipment (PPE) to include protective garments, e.g. tinting cape for client and towels, gloves and apron for learner
 - Combs, sectioning clips, tint bowl, sponge (if required) and tint brush
 - Meche, foils, wraps (as required)
 - Spatula (where required)
- Equipment:
 - Weighing scales or measuring jug/cup
 - Timer
 - Electrical equipment (if used), e.g. accelerator

Carry out colouring and lightening services

Taught content to include

Technique	Effect	Method
Block colouring	Colouring or lightening sections of the hair to create a contrast. Used in large areas to create areas of dark or light shading, can be used on any length hair or on undercuts, asymmetric styles or fringes	1: Hair is divided into two or more sections. A solid colour is applied to one half of the head and another to the other half if desired 2: Isolate chosen area from the rest of the hair using mesh or foil, applying chosen shade
Weaving	Small evenly spaced sections for a highlighting effect on darker base shade hair or add colour/darker tones to lighter hair shades	Using a pintail comb, weave meshes of hair and isolate using foil, colour wraps or meche. Apply chosen colour or lightener
Slicing	Used to create larger saturation of colour or lightening effects than weaving	Using a pintail comb, slice meshes of hair and isolate using foil, colour wraps or meche. Apply chosen colour or lightener
Colour/lightening placement	Used to create fashion colouring or lightening effects on different parts of the hair	Use either weaved straight line sections of hair or sliced sections leaving no natural hair out
Restoring depth and tone	Used to replace missing colour pigment to ensure even coverage of further colour application, or used to replace artificial colour that has faded	Use either a Semi, Quasi or permanent colour with correct solution of hydrogen peroxide (if applicable) to target areas. (usually mid length and ends of hair)
Graduation colour	Colour chosen is varied in either depth or tone to create a gradual and subtle colouring effect This technique gives a blended, natural look with no harsh or obvious regrowth lines	Starting at the nape area the desired colour/lightener is applied to the root area then the second colour is applied through the mid lengths and ends. The two colours are then smudged/blended together where they meet. Follow this pattern throughout the head taking small hair sections up to the front hair line
Balayage	Softer than highlights a gradual lightening effect. Ends are saturated in colour/lightener building colour up to the roots	Freehand painting of either pre-lightener or colour, concentrating through the mid-lengths and ends with a few strands painted towards the root area
Ombre	Two tone effect saturated colour on mid lengths and ends	Colour is freehand painted on the mid-lengths and ends only using desired colour or lightener
Root dragging	Creates a heavier colour at the roots	Colour or lightener is applied through the root area then either combed through or smudged using the hands

Virgin hair application	Used on hair that has not previously had colour or lightening services to ensure an even result throughout the hair	Apply either permanent colour or lightening products to the mid-lengths first. Follow through and apply to the ends – check development then apply to the roots. The root area processes quicker due to the heat of the scalp. Always follow manufacturer’s instructions
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Problems and solutions that may occur when colouring and lightening hair

Taught content to include

Problem	Causes	Solution
Contra-indication found	<ul style="list-style-type: none"> Not undertaking thorough consultation e.g. not checking scalp and/or hair thoroughly prior to service 	<ul style="list-style-type: none"> Do not begin the service or, if started, stop service and remove the colour/lightening product. Provide appropriate advice for treatment or referral for the contra-indication and encourage client to rebook for further consultation
Scalp irritation	<ul style="list-style-type: none"> Peroxide strength too strong Lightening product too strong Not checking scalp thoroughly prior to service Allergic reaction to products Too much heat applied 	<ul style="list-style-type: none"> Remove immediately with tepid water Seek medical advice Remove heat source
Uneven or patchy colour result	<ul style="list-style-type: none"> Incorrect application of product Porous hair Wrong product choice 	<ul style="list-style-type: none"> Spot colour (apply more product if hair condition allows) to the areas which are patchy
Poor coverage	<ul style="list-style-type: none"> Hair resistant Uneven application Incorrect choice of product 	<ul style="list-style-type: none"> Resistant hair – pre-soften the area Spot colour (apply more product if hair condition allows) to the areas which are poorly covered
Hair breakage	<ul style="list-style-type: none"> Hair is in poor condition Incorrect application or overlapping of product Incorrect use, or prolonged use of heat Incorrect strength of hydrogen peroxide used 	<ul style="list-style-type: none"> Remove product and apply and restructuring conditioner or apply specific treatment services
Skin staining	<ul style="list-style-type: none"> Too much product applied Poor application Failure to protect the skin Ineffective removal 	<ul style="list-style-type: none"> Remove using stain remover Prevent from happening by applying barrier cream to the

		skin on the hairline, before application of product
Seepage of product	<ul style="list-style-type: none"> • Incorrect application • Incorrect masking of area not to be coloured or lightened • Incorrect use of foils or meche • Packages not secure • Incorrect mixing of product (too runny) 	<ul style="list-style-type: none"> • Weave out patchy areas and apply base colour to match root area, to break up the patchy areas
Over processed result	<ul style="list-style-type: none"> • Product left on too long 	<ul style="list-style-type: none"> • Remove product and apply and restructuring conditioner or apply specific treatment services
	<ul style="list-style-type: none"> • Peroxide too strong 	<ul style="list-style-type: none"> • Remove product and apply restructuring conditioner or specific treatment services
	<ul style="list-style-type: none"> • Wrong product used 	<ul style="list-style-type: none"> • Re-assess the requirements and apply correct product if required • Advise programme of restructuring treatments prior to further colouring treatments
	<ul style="list-style-type: none"> • Porous hair 	<ul style="list-style-type: none"> • Advise programme of restructuring treatments prior to further colouring treatments
	<ul style="list-style-type: none"> • Too much heat applied 	<ul style="list-style-type: none"> • Advise programme of restructuring treatments prior to further colouring treatments
Deterioration of hair condition	<ul style="list-style-type: none"> • Colouring product too strong • Over processing • Hydrogen peroxide too strong • Too much heat applied • Wrong product used 	<ul style="list-style-type: none"> • Remove product and apply restructuring conditioner or specific treatment services
Banding	<ul style="list-style-type: none"> • Result of poor colour application • Uneven hair porosity • Incorrect choice of colour when selecting or matching the existing hair colour • Bands of colour may be either darker or lighter than the rest of the hair 	<ul style="list-style-type: none"> • If hair condition allows, apply either pre-lightener, colour removers/colour reducers to banding. Recolour with correct shade • If appropriate, where hair is a lighter shade apply semi-permanent colour to those areas
Under-processing of colour	<ul style="list-style-type: none"> • Product not left on long enough • Peroxide too weak • Not enough product applied • Previous product build-up on hair 	<ul style="list-style-type: none"> • Re-apply and allow full development time • Re-apply with appropriate strength peroxide • Re-apply with sufficient product if condition allows • Remove previous product build up and re-apply target product

Provide clients with advice and recommendations on the service(s) provided and the products available

Taught content to include

- Provide aftercare advice regarding the service including potential costs of further colouring and/or lightening services or products
- The needs and requirements of the client for future services, e.g. guidance on timing of when to return to the salon for upkeep of colour and/or lightening services
- Avoidance of excessive sun exposure, i.e. UV light rays will lighten the hair and using protection, e.g. a hat, will help to maintain the tone and depth of the colour and/or lightening service
- Avoidance of excessive heated styling equipment, e.g. using straightening irons continuously will affect the overall condition of the hair and may affect future colouring and/or lightening services
- The need to protect the hair for clients when swimming, e.g. continual swimming without hair protection may affect the hair condition and the ability of the hair to retain the freshness of some hair colours, e.g. red hair colours may lose depth and tone
- The products that may be used by clients including the benefits and effects to maintain the colour, e.g. specific shampoos and conditioners to maintain the colour and/or condition of the hair
- To ensure the client feels valued and that the colouring and/or lightening service was specifically tailored to their individual needs, e.g. using a specific range of colouring products
- To ensure client expectations can be met and where applicable offer other services, e.g. advising the client how a different cut or colour choice could enhance their hairstyle
- Other services, offers or promotions, for example discount incentives tailored to the service when using a salon loyalty card
- Reputation and walking advertisement for the salon

LO2 Understand how health and safety policies and procedures affect colouring and lightening services

The responsibilities for health and safety in own role

Taught content to include

- Relevant legislation for consultation, client care, confidentiality and consumer/retail, for the country the qualification is taken, which includes: General Data Protection Regulation (GDPR), consumer rights, health and safety, equality. Health and safety regulations for the country where the qualification is taken, examples within the United Kingdom would include:
 - The Health and Safety at Work Act
 - The Management of Health and Safety at Work Regulations
 - Provision and Use of Work Equipment Regulations
 - Personal Protective Equipment at Work Regulations
 - Electricity at Work Regulations
 - Reporting Injuries, Diseases and Dangerous Occurrences Regulations (RIDDOR)
 - The Consumer Protection Act
 - The Trade Descriptions Act
 - Control of Substances Hazardous to Health Regulations (COSHH)
 - Salon insurance requirements, employers liability, public liability, professional indemnity
- Responsibilities for health and safety to include:
 - The reasons why all staff working in the salon have a responsibility for the health and safety of themselves and others
 - The salon safety regulations to ensure their actions do not put others at risk, which includes all staff, clients and visitors
- Additional factors will include:
 - The reasons why it is important to describe accurately the features and benefits of products and services
 - The reasons and importance for gaining client consent
 - The maintenance of the salon environment including:
 - The comfort of the salon
 - Cleanliness of the salon to prevent cross-infections via direct or indirect contact
 - Provisions and use of workplace equipment – using only products, tools and equipment that are fit for purpose
 - Reasons for personal protective equipment (PPE), e.g. using protective gloves to prevent contact dermatitis when using certain products
 - Making visual checks on all electrical equipment and reporting faults/isolating power
 - Ensuring manufacturers' instructions are always followed when using products and equipment, e.g. incorrect measurements of products could result in target colour being incorrect
 - Responsibilities of reporting certain work-related incidents or accidents, diseases and dangerous occurrences to a senior staff member

- Ensuring the public are protected from unsafe goods or misleading price indications
 - Prevent a false trade description of any goods supplied or offered, or making false statements about the provision of any service
 - Ensure that all personal client data records remain safe and confidential
 - Update client records following service
 - Hazards associated when colouring and/or lightening hair
 - Risks associated to colouring and/or lightening hair
 - Safety when using associated products, tools and equipment
 - Reasons to undertake appropriate tests both on the client and the hair
 - Recognising contra-indications to colouring and/or lightening services
- The legalities of providing a chemical colouring and/or lightening service to under 16s - this applies to permanent colour products that may cause allergic reactions or sensitising of the skin. Check manufacturers' instructions and look for labels stating: 'this product is not intended for use on persons under the age of 16'

The potential hazards and possible risks that may occur in the workplace and affect services

Taught content to include

- The importance of ensuring that all chemicals related to colouring and lightening services are stored, handled and used in accordance to salon policy, local bylaws and manufacturers' instructions
- The potential hazards and risks associated with not completing appropriate tests on the client and the hair
- Hazards – anything that has the potential to cause harm, e.g. spillage of product on the floor
- Risks – a chance, high or low, that harm caused by the hazard may occur, e.g. potential for self, client or others to slip on the spillage
- Working safely throughout the service, an example may include ensuring there is adequate room around the client with no obstructions
- Ensuring use and maintenance of any equipment is monitored and visual checks are conducted, e.g. checking for loose wires and temperature settings on heat accelerators
- Ensuring the client is comfortable and free from harm throughout the service, e.g. removing jewellery that may obstruct colour and/or lightening application
- Disposing of waste appropriately to minimise risk of cross-infection and ensure there is no unnecessary risk to the environment, e.g. ensure clean protective garments are freshly laundered for every client
- The Control of Substances Hazardous to Health (COSHH), or legislation relevant to the country, including handling and storage of all products, tools and equipment
- The importance of ensuring a thorough visual check of the hair and scalp is performed prior to the service to prevent cross-infection, e.g. ensuring there are no cuts, sores or abrasions on the scalp
- Risk of electric shock when using electrical equipment for processing the colour or to enhance the finished style service to include potential hazards of trailing wires
- Fire – the salon's policy in the outcome of a fire and where the assembly point is
- The importance of ensuring personal protective equipment (PPE) requirements are followed for both client and stylist e.g. the use of gloves when applying colour and/or lightening products

The safe and hygienic working methods and practices that must be followed throughout the services

Taught content to include

- Use of clean towels, gowns and protective garments for all clients
- The importance of providing personal protective equipment (PPE) for both client and stylist e.g. prevention of damage to client's clothing
- Use of clean and sterile tools equipment for all clients
- Barrier cream for client hairline where required
- Sectioning hair appropriately for the colouring and/or lightening service, e.g. to prevent overlap of product or product touching the client's skin
- Apply appropriate techniques for the colour and/or lightening service, e.g. colour refreshing application techniques on the mid-lengths and ends
- Control of accelerator/electrical equipment (if used,) e.g. ensure the temperature is set according to the manufacturer's instructions taking into account the client's hair classification
- Organisation of working area
- Avoid trailing wires and spillages from products on the floor, e.g. colour on floor may cause slipping
- The precautions that must be taken when using powder and other lightening products

Contact dermatitis and how it can be prevented

Taught content to include

- Recognising contact dermatitis symptoms
- Contact dermatitis – is a rash caused by the skin reacting to a substance it has come into contact with, e.g. chemicals. Symptoms can be varied and include
 - Skin redness
 - Extreme itching
 - Oozing or blisters, may make skin swell
 - Skin that appears darkened or hard/leathery to touch that may become dry or flaky
 - Sensitivity to products and sunlight
- How to avoid contracting; preventative measures which may include
 - Wearing gloves (recommended) when shampooing hair prior to colour and/or lighten hair services
 - Rinsing and drying hands thoroughly
 - Use of moisturisers or barrier creams
- Following Control of Substances Hazardous to Health (COSHH) regulations when using and storing colour and/or lightening products
- Following and adhering to manufacturers' instructions when using products to colour and/or lighten hair

LO3 Understand the factors that may influence colouring and lightening services

The factors that may influence services provided

Taught content to include

- Hair classification

Hair classifications table			
Type 1: Straight hair	1A - Fine/thin	1B - Medium	1C - Coarse
	Straight	Straight with volume	Straight difficult hair
Type 2: Wavy hair	2A - Fine/thin	2B - Medium	2C - Coarse
	'S' pattern	Frizzy 'S' pattern	Very frizzy 'S' pattern
Type 3: Curly hair	3A - Fine/thin	3B - Medium	3C - Coarse
	Soft curl	Loose curl	Tight curl
Type 4: Very curly hair	4A - Fine/thin	4B - Medium	4C - Coarse
	Tight coiled curl pattern	'Z' pattern and spring curl	Tight 'Z' pattern

- Density – this is defined as the number of hairs on the scalp and will affect the tools, techniques and products used and the time of the service
- Texture – the circumference of an individual strand of hair. Hair can be fine, medium or coarse. Coarse hair has the largest circumference, and fine hair the smallest – when colouring and/or lightening, the amount of product mixed will need to be considered
- Porosity – this relates to the condition of the cuticle. Porosity levels are caused by both chemical and physical damage. Cuticles which are raised and feel rough and may tangle easily and careful consideration to the hair's overall condition is important when colouring and/or lightening services are undertaken
- Elasticity – this relates to the condition of the cortex layer of the hair. Elasticity levels are affected by how the hair is treated and the condition it is in. Hair should stretch and return to its normal size; this indicates the hair is in good condition hair and no damage to the cortex. If hair stretches and snaps or does not return to its original length this indicates internal damage to the cortex. Clients whose hair has poor elasticity may not be suitable for some colouring and/or lightening services
- Growth patterns – this relates to the direction in which the hair grows from the scalp. Selecting the correct method of application may be required for some hair growth patterns
- Head and face shape and size – this relates to the overall shape and size of the client's head and includes any specific features
- Skin tone – needs to be considered when choosing colours and/or lightening products
- Lifestyle – this is about the client's everyday activities and working patterns e.g. choice of some fashion colours may not be suitable for some clients due to swimming every day and the longevity of the colour may fade too quick
- Hair length – this will affect the general condition of the hair
- The current style hair or haircut, e.g. adaptations may be required to achieve the client expectations
- Temperature and humidity of salon – will affect the hair's ability to process and the development time
- Existing/artificial hair colour – this can impact on the client's desired result; selection and application of the product may vary according to the existing hair colour

- Percentage of white hair – this can cause a resistance to colour, and become difficult to cover
- Test results – these affect planning the colouring of hair; the test results will establish what it is possible to achieve with the planned colour and/or lightening service
- Strength of hydrogen peroxide – this determines the degree of depth of colour and/or lightening that is required
- Time interval from last chemical service – recorded if existing client, questioned to discover the information if new client
- Recent removal of hair extensions/previous services – this should be considered as fallen hair can occur after hair extension removal, and the scalp and hair could be sensitised after this service and may not be suitable for a colour and/or lightening service, e.g. check for small patches of baldness
- Use of electrical equipment /accelerators – these can speed up the development of colouring and lightening product

The ways of dealing with any influencing factors

Taught content to include

- How these may influence the colouring and/or lightening services to include:
 - Density – coarse, tight, curly hair will require more products than a fine head of hair
 - Texture – may affect the porosity of the hair and the amount of product required
 - Porosity – porous hair will absorb products more easily, e.g. over-porous requires a considered application to ensure an even result
 - Elasticity – poor elasticity may limit the colouring and/or lightening service, requiring advice on improving the condition of the hair
 - Growth patterns – may influence the application techniques used for colouring and/or lightening
 - Head and face shape and size – colour and/or lightening products choice and placement may be influenced by face shape
 - Skin tone – colour and/or lightening products choice and placement may be influenced by skin tone, e.g. darker colour application may not be suitable for very light skin tones
 - Lifestyle – the need to ensure the client is advised regarding return visits and costs required for maintenance
 - Hair length – the length of hair may affect the duration of the service time and the amount of products required when colouring and/or lightening the hair
 - The current style hair or haircut, e.g. adaptations may be required to achieve the client expectations
 - Temperature and humidity of salon – if the salon is cold then it may require a longer time for colour and/or lightener to develop; regular development tests required
 - Existing/artificial hair colour – as an example, an incompatibility test should be carried out prior to service appointment to establish what the existing hair colour is where there is doubt
 - Percentage of white hair – for example, the more white hair on the head the lower the volume or percentage of peroxide should usually be used in order to cover it thoroughly, with the desired base shade added for absolute coverage. Check manufacturers' instruction for best results

- Test results – these should be recorded and made available whenever colour and/or lightening services are undertaken
- Strength of hydrogen peroxide – the use of correct strength hydrogen peroxide in accordance with manufacturers’ instructions
- Time interval from last chemical service – other chemical services may have an impact on colouring and/or lightening services, or influence the product used; e.g. use of semi-permanent colour to refresh a faded permanent colour
- Recent removal of hair extensions/previous services – the application of permanent colour and/or lightening products may not be suitable for a sensitised scalp
- Use of electrical equipment /accelerators – use only according to manufacturers’ instructions

Contra-indications and how they affect colouring and lightening services

Taught content to include

- Contra-indications to colouring and/or lightening services to include, bacterial, viral or fungal infections. Contagious conditions to include:
 - Bacterial infection examples include:
 - Impetigo – begins as blisters that itch, then fill with a yellowish-brown fluid, that once ruptured become a flat crust
 - Folliculitis – infection of the hair follicle, causes bumps with pus. May be painful, itchy, sore or swollen
 - Viral infection examples include:
 - Herpes simplex, a raised red blister full of fluid. It will usually be painful and tender to the touch
 - Warts, small, fleshy, grainy bumps usually flesh-coloured, white, pink or tan. Rough to the touch and can be sprinkled with black pinpoints, which are small, clotted blood vessels
 - Fungal infection examples include:
 - Ringworm – depends where it appears but may be red, itchy, scaly, or raised patches that develop blisters or begin to ooze. Patches that may be redder on the outside edges creating a ‘ring’ effect
 - Infestation/parasites examples include:
 - Head lice – are tiny grey/brown insects. Head lice cling to hairs but stay close to the scalp which they feed off. Head lice lay eggs which hatch after 7 to 10 days. It takes about 7 to 10 days for a newly hatched louse to grow into an adult and start to lay eggs known as nits. Nits are the empty yellow-white eggshells which are left when the lice hatch. Nits look like dandruff but stick strongly to hair
 - Scabies – itchy skin condition causing a rash which may cause tiny blisters or sores where mites have burrowed into the skin
- Hair defects, contra-indication examples include
 - Trichorrhexis nodosa – hair which breaks easily. Symptoms can include patches of hair loss or extremely short hair that appears not to grow. The hair shaft has thickened or thinned areas or has excessively split ends with discolouration. If a hair defect is suspected the client should be referred for medical attention or advice and a colouring and/or lightening service should not be performed

- History of previous allergic reaction
- Conditions which may be contra-indicated, prevent or restrict the colour and/or lightening service
 - Scalp sensitivity – an inflamed, sore and red scalp may prevent direct heat, permanent colours or bleaches being placed on scalp and care should be taken when using colouring and/or lightening products
 - Sebaceous cyst – lump on top or under scalp/head
 - Psoriasis – dry silvery scales of skin, can become inflamed when chemicals are applied to the scalp area
 - Contact dermatitis – dry, red, sore, itchy and may be weeping
 - Recent scar/tissue injury, may be tender when using combs, brushes or heat
 - Hair loss, possible after hair extension removal, medication, stress or trauma (alopecia), use tools and equipment carefully to avoid damage to hair or skin
- The course of action to be taken if contra-indications are suspected to include
 - Not to offer diagnosis
 - Which conditions need reporting and when
 - Whom to report to and where to record the findings (if necessary/appropriate)
 - Referral for medical attention or advice

The importance of preventing cross-infection and cross-infestation

Taught content to include

- How to avoid cross-contamination, cross-infection or infestation – use of correct sterilising and disinfecting methods for all tools and equipment
- Ensuring the client's scalp and hair are checked prior to the colouring and/or lightening service
- Avoidance of cross-contamination, e.g. using unclean tools or protective garments from one client could contaminate the next client's hair or scalp
- Ensure the professional salon image is maintained

The importance of tests to the hair and scalp prior to and during colouring and lightening

Taught content to include

- The reasons why tests are carried out, e.g. the consequences of not undertaking a porosity test resulting in uneven colour/lightening result and deterioration of hair
- The importance of following manufacturers' instructions for skin/sensitivity tests and the potential consequences of failing to carry out these tests
- To ensure that all tests are collated, dated and are stored and recorded for future reference
- To ensure there is a full history of all test results
- To ensure that the records have full and accurate information including additional comments relating to the tests
- To prevent possible legal action
- To ensure the colour and/or lightening service finished results are as expected
- To ensure the colour and/or lightening service finished results meet the client requirements

When and how colouring and lightening tests are carried out

Taught content to include

- Skin/sensitivity test – a positive reaction would prevent the colour and/or lightening service. Refer always to the manufacturers' instructions for skin/sensitivity testing requirements, as an example guide:
 - Clean a small area of skin behind the ear
 - Refer always to manufacturers' instructions, as an example:
 - Mix together a small amount of dark tint with a few drops of hydrogen peroxide
 - Apply a small amount of tint on cleaned area behind the ear and allow to dry
 - Advise client to leave on for 24-48 hours unless there is irritation, in which case the client should wash it off immediately. Symptoms of a positive reaction would be redness, itching, soreness, swelling or inflammation
- Elasticity test – may prevent or restrict application of colour and/or lightening products if the hair is stretched and does not go back to its original state:
 - On wet hair, take individual strands of hair from 3-4 areas of the head – if hair is dry then dampen thoroughly
 - Hold one single hair securely and pull it – if the hair stretches and return to its original length without breaking – it has normal elasticity. If hair breaks or fails to return to its original length it has low or no elasticity
- Porosity test – the hair's ability to retain moisture. Where hair is porous it may prevent or restrict the colouring and/or lightening service. Porous hair tends to process chemical reactions quickly and can therefore over-process easily. Additional advice to client may include hair treatments, restyle or cut:
 - To determine the external strength of cuticle – take a few strands of hair slide down towards the scalp using one finger and one thumb
 - The more resistance felt, the more porous the hair

- Incompatibility test – to check for the presence of metallic salts in the hair. If present, it will result in the hair becoming discoloured or dissolving and result in a positive reaction. This will prevent the colour and/or lightening services:
 - Take a small cutting from the client’s hair and place it in a solution of 20mls 6% hydrogen peroxide and 1ml of perm solution in a non-metallic bowl. Leave up to 30 minutes to check for a reaction. Signs of a positive reaction are bubbling, fizzing, discolouration or the solution may give off heat. These signs indicate that metallic salts are present in the hair
- Test Cutting/colour test – undertaken prior to service to check if desired colour or lightening depth is achievable:
 - Take a few cuttings from various parts of the head. Secure with cotton or adhesive tape. Mix a small amount of the desired colour(s) with the correct strength of hydrogen peroxide and place the cuttings into the colour
 - Process as per manufacturers’ instructions
 - Rinse and remove the colour and assess the results
- Development strand test – during the colour service:
 - Follow manufacturers’ instructions and during development time – wipe off the colour or lightening product from a few strands of hair to see if the colour result has been achieved

How test results influence creative colouring and lightening services

Taught content to include

- The importance of ensuring that test results are recorded and stored accurately so that a history of results can be reviewed, e.g. test cuttings undertaken to establish different depths of colour for future use
- Skin/sensitivity test – positive and negative reactions e.g. a negative reaction means the service can continue
- Elasticity test – influences the product choice, application and final required result, e.g. a poor elasticity outcome may require the application of a semi-permanent or temporary colour with advice on further treatment services to improve the overall condition of the hair
- Porosity test – may restrict or prevent chemical service – application techniques and product choice need to take into account the differences in hair structure and may affect final may result in unevenness of colour and/or lightening finished effect
- Incompatibility test – prevents chemical service. If there is a presence of metallic salts in the hair and chemicals are added it may result in the hair destruction. Alternative colouring services may be permitted – undertake a test cutting to establish suitability
- Test cutting/colour test – to check if final colour is achievable, e.g. how the natural pigment within hair affects the choice of colour and colouring products and the possible need to pre-lighten
- Development strand test – to check the processing and timing of the service. If not undertaken this may result in under or over-processing of the service. Follow manufacturers’ instructions for development times

LO4 Understand the science of colouring and lightening hair

The effects on the hair structure when using different colouring and lightening products

Taught content to include

Colour and Lightening Product Type			
Type	Available	%/Vol	Effects on hair structure and duration
Temporary colours	Setting lotion, mousse, shampoos, mascaras, sprays, glitters	None	<ul style="list-style-type: none"> • Larger molecules coat the hairs cuticle • Only deposits colour and tone • Last for one wash
Semi-permanent colours	Conditioners, lotions, shampoos, gels, moussing agents	None	<ul style="list-style-type: none"> • Smaller molecules are deposited into the hairs cuticle and outer edge of the cortex • Only deposits depth and tone • Lasts 5-12 shampoos depending on manufacturers' instructions
Quasi/demi permanent colours	Thickening liquids, cream, gels, moussing agents	1.9%/6 Vol 3%/10 Vol 4%/13 Vol	<ul style="list-style-type: none"> • Mixture of smaller and larger and molecules • These molecules sits within the hair's structure • Different sized molecules enter the hairs cortex • Only deposits depth and tone, will not lighten the hair • Lasts usually from 10 shampoos upwards depending on manufacturers' instructions
Permanent colours	Liquid gels, cream, lotion	3%/10 Vol 6%/20 Vol 9%/30 Vol 12%/40 Vol	<ul style="list-style-type: none"> • Smaller molecules enter the hairs cortex becoming trapped as they swell and enlarge • Can lighten hair up to 4 shades • Can darken and add/change and neutralise tone • Permanent – grows out
High-lift colours	Creams, powders, liquid gels	9%/30 Vol 12%/40 Vol	<ul style="list-style-type: none"> • Penetrate the cortex layer • Can lighten up to 5 shades • Can also add, change and neutralise tone • Permanent – grows out

Bleaching Agents	Oils, creams, powder, liquid gels	3%/10 Vol 6%/20 Vol 9%/30 Vol 12%/40 Vol	<ul style="list-style-type: none"> • Lighten artificial and natural colour pigment, open the cuticle and enter the cortex, where they change melanin (natural pigment) to oxymelanin (colourless pigment) • Permanent – grows out
Hydrogen peroxide	Liquid or liquid cream	3%/10 Vol 6%/20 Vol 9%/30 Vol 12%/40 Vol	<ul style="list-style-type: none"> • When mixed with colouring or lightening product produces a chemical reaction
Colour removers/reducers	Creams, powders, gels	6%/20 Vol 9%/30 Vol 12%/40 Vol	<ul style="list-style-type: none"> • Seek out and remove artificial colour pigments by dissolving them, these are then washed away

The effects on the hair structure when pre-softening, pre-Lightening and pre-pigmenting hair

Taught content to include

- Colour correction techniques, to include:
 - Pre-softening hair
 - Opens the cuticles in preparation for the colouring process, apply hydrogen peroxide to resistant hair, dry into the hair and apply permanent tint as normal. Follow manufacturer's instructions for guidance on which strength of hydrogen peroxide to use for pre-softening
 - Pre-lightener
 - The pre-lightener reacts with melanin in the hair, removing the melanin in an irreversible chemical reaction. The pre-lightener oxidizes the melanin molecule. The melanin is still present, but the oxidized molecule is colourless. However, bleached hair tends to have a pale-yellow tint. The yellow colour is the natural colour of keratin, the structural protein in hair. Also, pre-lightener reacts more readily with the dark eumelanin pigment than with the Pheomelanin, so some gold or red residual colour may remain after lightening. Hydrogen peroxide is mixed with the pre-lightener. The peroxide is used in an alkaline solution, which opens the hair shaft to allow the peroxide to react with the melanin
 - Pre-pigmenting hair
 - Colouring products (temporary, semi or quasi-permanent) are used to replace lost pigments in the hair. Red tone is applied for target base 5 or under, copper tone used for target base of 5-7 and gold tone used for target base of 8 and above. Apply tone required, dry into hair and apply permanent colour in target shade

The effects of natural and artificial light on the appearance of hair colour

Taught content to include

- Salon's lighting is important to enable the client to see their colour result accurately
- Natural light is referred to as white light – ideal way to show the hair's true colour
- 'Soft' yellow tone electric bulbs can make the hair look warmer in appearance and neutralise blue or ash tones
- Fluorescent tubes can make the hair appear more ash in tone as they give off a bluish tinge and remove the warmth from the hair

The principles of colour selection

Taught content to include

- Primary colours used in colouring and/or lightening are:
 - Red
 - Yellow
 - Blue
- Secondary colours used in colouring and/or lightening are:
 - Orange
 - Green
 - Violet
- Mixing two primary colours together will produce a secondary colour e.g. yellow and blue makes green
- The effects of natural and artificial light, e.g. artificial light does not contain the full range of all visible colours that make up natural light and can affect the apparent colour of the hair
- The cortex contains all the colour pigments found in the hair
- Pigments are called melanin
- The colour pigments found in the cortex of the hair:
 - Eumelanin are the black and brown colour pigments
 - Pheomelanin are the yellow – red/brown colour pigments
- The depth of colour refers to how light or dark a colour is, e.g. medium brown
- The tone of colour refers to the colour shade or hue, e.g. medium red brown (mahogany)
- The principles of colour selection:
 - ICC (International Colour Chart) is used to identify the depth and tone of natural and artificial hair colour
 - Use of a colour wheel to assess primary and secondary colours and for tone and neutralisation purposes, e.g. to eliminate yellow tones neutralise with violet; to eliminate green tones neutralise with red
- The ICC is represented by a numbering system that most manufacturers follow:
 - Depths range from black to lightest blonde

Depth base	Name
10	Lightest blonde
9	Very light blonde
8	Light blonde
7	Medium blonde

6	Dark blonde
5	Light brown
4	Medium brown
3	Dark brown
2	Darkest brown
1	Black

- When hair is lightened it loses its colour pigments in a certain order – red, orange and then yellow

The effects that temperature has on the colouring and lightening process

Taught content to include

- Temperature – the temperature of the salon can have an effect on the development time, e.g. a warm salon may speed up development times
- Application of heat (if used) – may speed up developing time
- Temperature of the head – the heat from the head affects possible development and outcome of colour and/or lightening services, e.g. a client that is hot and perspiring profusely at the scalp area may deposit moisture that works against the mixed products, or speeds up the processing time
- The importance of constantly monitoring the development time, e.g.
 - Over development or the risk of breaking and damaging the hair
 - Under development may lead to uneven results

LO5 Understand the tools, equipment, products and techniques used for colouring and lightening services

The tools, equipment and products available and the effects they achieve

Taught content to include

- Tools
 - Cutting comb – for use with sectioning
 - Pin tail comb – used for picking up precise lines and sections when colouring, e.g. for weaving or slicing hair
 - Sectioning clips – used to section or divide hair, keeps hair in place prior to colouring or lightening
 - Plastic bowl – to mix product
 - Application brushes/sponge applicators – various types – to mix and apply product
- Equipment
 - Gloves and apron – to protect hands and clothing
 - Colour remover lotion/wipes – to remove excess from client hairline
 - Colour key – to ensure all colour is squeezed from working tube
 - Colour rake – freehand technique tool
 - Colour chart – colour selection choice, use as per manufacturers' instructions
 - Gowns – to cover client's clothes
 - Plastic cape – provides a plastic layer to avoid seepage occurring and staining
 - Towels – placed on top of gown to protect the client
 - Electrical accelerator (if used) – for application of heat to speed the development time
 - Steamer (if used) – for application of moist heat to speed the development time
 - Foils/meche/foams – various resources available for various application techniques and end results
 - Highlighting plastics caps, hooks – to pull shorter hair through plastic barriers
 - Whisks – to whisk product and peroxide together more evenly
 - Timers – to ensure precise timings for service
 - Scales – to correctly measure colouring and lightening products
 - Measuring jugs – to measure peroxide amount, and product mixing
- Products – to include application, effects and removal methods
 - Barrier cream to prevent unnecessary staining around the hairline and ears
 - The importance of following manufacturers' instructions for product selection and application methods
 - The different strengths of hydrogen peroxide and how they influence colouring and lightening services
 - The importance of applying products in a way that minimises the risk of the product being spread to the client's skin, clothes and surrounding area
 - The different strengths of hydrogen peroxide and how they influence colouring and lightening services

- The factors that must be taken into account to judge the quantity of hair to be woven to achieve a balanced look
- The importance of sectioning hair accurately when colouring and lightening
- The importance of applying products in a way that minimises the risk of the product being spread to the client's skin, clothes and surrounding area
- The potential risks of using colour and lightening products on previously chemically treated hair, will cause overlapping and potentially damage and breakage to the hair – offer other types of services
- The precautions that must be taken when using bleach powder and other lighteners
- The different types of lighteners and toners available and their uses
- The importance of emulsifying colour prior to removal to prevent staining and maintain customer satisfaction
- The importance of ensuring all colour and/or lightening products once processed are removed from the hair
- The importance to avoid disturbing areas from developed areas to allow all the hair to achieve the desired colour result
- The importance of ensuring the hair is restored to its natural pH balance after a colouring and/or lightening service by applying a pH balanced conditioner. This will include:
 - Return the hair back to normal 4.5 - 5.5 pH state
 - Add moisture to the hair
 - Stop any further oxidation of the product taking place
 - Close the cuticles
- pH values of products (to note – check with manufacturers as some may vary)
 - Pre-lightener pH 9.0
 - Permanent colour pH 8.0 - 9.0
 - Quasi colour pH 7.0 - 8.0
 - Semi colour pH 6.5

Product type	Effects	Method of application and removal
Temporary	<ul style="list-style-type: none"> • Good introduction • Refresh fade • Instant fashion effect • Neutralises unwanted tones temporarily • Darken hair • Blends silver tones • No commitment 	<ul style="list-style-type: none"> • Partial head/applied where needed • Shampoo/rinse out completed by client at home
Semi-Permanent Colour	<ul style="list-style-type: none"> • Refresh permanent colours with faded ends • Add shine and improve condition • May be suitable for clients allergic to other colour products • Fashion/fantasy shades • Less commitment than permanent colouring 	<ul style="list-style-type: none"> • Full head/partial head application • Use applicator, sponge and bowl • Apply to where is required

Quasi/Demi Permanent	<ul style="list-style-type: none"> • Gentle on the hair • Tone out silver for longer/gentle fade • Not used to lighten only add tone/darken • Tone lightened hair • Low volume/strength peroxides only 	<ul style="list-style-type: none"> • Full head/partial head application • Counteracts unwanted tones more permanently • Fades away over time • Massage to emulsify the colour • Rinse until water runs clear • Shampoo to remove product completely from hair and scalp • Finish with acidic conditioner to restore pH balance
Permanent Colours	<ul style="list-style-type: none"> • 100% white hair coverage • Fashion shades • Lighten, tone and darken hair • Various strength/volume peroxides 	<ul style="list-style-type: none"> • Full head/partial/weaving/freehand techniques • Grows out, very little fade • Massage to emulsify the colour • Rinse until water runs clear • Shampoo to remove product completely from hair and scalp • Finish with acidic conditioner to restore pH balance
Lightening Agents (high-lift tint)	<ul style="list-style-type: none"> • Lighten the hair more gently than bleaching agents • Buffers to stop the process after a set period of time • Can lighten some pre-coloured hair • Up to 5 levels of lightening can be achieved • Fashion tones available • Higher levels of hydrogen peroxide can be used 	<ul style="list-style-type: none"> • Full head/partial head/weaving/freehand techniques • Grows out, very little fade • Shampoo and condition to remove product completely from scalp • Finish with acidic conditioner to restore pH balance
Bleaching products	<ul style="list-style-type: none"> • Lightens the hair using an oxidation process which de colours the melanin/colour pigment in the hair shaft • Higher levels of lightening can be achieved • Various shades of blonde, that can then be toned with alternative product 	<ul style="list-style-type: none"> • Full head/partial head/scalp/weaving/bathing • Grows out, can be prone to darkening/yellowing in atmospheric conditions • Shampoo and condition with warm water to completely remove products • Finish with acidic conditioner to restore pH balance

	<ul style="list-style-type: none"> Removes artificial colour pigment for correctional purposes Low to high levels of peroxide used to achieve and map speed with results 	
Colour removers/reducers	<ul style="list-style-type: none"> Removes artificial colour from the hair preparing it for colour change 	<ul style="list-style-type: none"> Mix with water and or peroxide depending if removing tone/depth Apply using a sponge at the basin avoiding the natural hair Keep the hair warm by using hands to smooth product deep into the cuticle Visual checks for development Rinse with warm water and apply acidic conditioner to restore pH balance
Vegetable colourants/Henna	<ul style="list-style-type: none"> Darkens or adds tone to virgin hair Stain the cuticle and build up in intensity 	<ul style="list-style-type: none"> Mix with warm/hot water and applied directly to hair, wrapped up with plastic and towel and developed under heat for as long as desired result is achieved Rinse thoroughly until water runs clear

The importance of following salon and manufacturers' instructions during colouring and lightening services

Taught content to include

- To ensure the target colour and/or lightening result is achieved
- The importance of ensuring there is adequate ventilation when mixing powders and bleaches to minimise unnecessary inhalation of product
- To prevent hazards, e.g. when applying the product ensuring spillages are wiped up if dropped onto the clients skin
- To minimise risks, e.g. the risk of an allergic reaction to the product irritating the clients skin
- To produce satisfactory results, e.g. incorrect mixing of products could result in wrong or patchy target colour and/or lightening results being achieved
- To avoid problems or mistakes, e.g. the correct mix of hydrogen peroxide (if used) with the colour and/or lightening product is adhered to
- To avoid legal action, e.g. failure to undertake the appropriate tests before colouring and/or lightening service

The importance of using products cost-effectively

Taught content to include

- Applying products in a logical sequence
- Applying products evenly to minimise wastage, e.g. following manufacturers' instruction regarding the mixing ratios required for applications to the hair
- The effect on the hair and/or scalp if excessive products are used, e.g. applying colour and/or lightening products to excessively porous hair could result in hair breakage or the scalp become irritated by the product
- Effects on the environment to include:
 - The mixing of products in a well ventilated area – away from others and avoidance of inhalation when using lightening powders
 - The safe disposing of unwanted colouring and/or lightening materials
- Following salon and organisation policy when using colouring and/or lightening product
- Calculate costs of the creative colour service, include any retail products sold, e.g. colour safe shampoo and conditioner

Assessment requirements

Learners must complete all assessment requirements related to this unit:

1. Service portfolio
2. Theory examination
3. Synoptic practical examination

1. Service portfolio

Learners must produce a service portfolio which is required to be completed under supervision of a lecturer who must monitor the quality of the services performed throughout the learners' training

The performance of learning outcome 1 must be demonstrated as part of all technical observations and will be recorded on **at least 4 occasions**. This should be conducted on a range of new and existing clients to create a range of creative colour and lightening effects and include the following:

- At least 25 percent of the hair to be changed using: block colouring and/or lightening, weaving, slicing, colour placement
- To the full head: restoring depth and tone, graduation of colour, ballyage, ombre, root dragging and virgin hair application

The service portfolio must be completed and marked prior to the learner completing the theory examination and the synoptic practical examination.

2. Theory examination

Learners must complete a theory examination for this unit. This will consist of a multiple choice question paper.

The theory examination will test knowledge and understanding from across learning outcomes 2, 3, 4 and 5. Learners should use the unit content sections of this unit to aid revision.

3. Synoptic practical examination

This unit forms part of the synoptic practical examination which will be externally set by the awarding organisation and examined and marked by an external examiner. The synoptic practical examination will take place at the end of the period of learning.

Document History

Version	Issue Date	Changes	Role
1.0	02/09/19	First published	Head of Qualifications and Processing