

# Unit 41: Make and Test Beauty Therapy Products

<b>Unit code:</b>	<b>F/601/4462</b>
<b>QCF Level 3:</b>	<b>BTEC Nationals</b>
<b>Credit value:</b>	<b>5</b>
<b>Guided learning hours:</b>	<b>45</b>

## ● Aim and purpose

This is a preparation for work unit, which is based on capability and knowledge. This unit is about investigating the ingredients used in a range of beauty therapy products, as well as understanding how their properties affect the performance of these products, in order to make simple skincare products and coloured cosmetics. This includes creating simple recipes, undertaking laboratory tests and small consumer trials.

To carry out this unit the learner will need to maintain effective health, safety and hygiene procedures throughout their work.

## ● Unit introduction

During their career, many people in the hair and beauty sector will use numerous types of products, including skincare preparations, coloured cosmetics and specialist products. For example, beauty therapists are expected to provide aftercare advice to clients, advising them of suitable products they could use as part of their homecare routine. Beauty therapists are also expected to have a working knowledge of the active ingredients in the products they use on clients during treatments.

This unit gives learners the knowledge, understanding and skills necessary to make and test simple beauty therapy products. This includes basic skincare and coloured cosmetics.

Learners will explore the properties and different functions of various ingredients and work out simple formulations for creating beauty products, following health and safety practices. Learner will also be taught about the legal importance of clear product labelling, comparing the effects of 'value for money' on commercially-produced beauty therapy products and using laboratory and consumer testing. Learners will prepare for and make simple beauty therapy products, designing accompanying labels.

## ● Learning outcomes

**On completion of this unit a learner should:**

- 1 Be able to prepare for making beauty therapy products
- 2 Be able to make and test beauty therapy products.

# Unit content

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## 1 Be able to prepare for making beauty therapy products

*Preparation:* of themselves (protective attire, eye protection); of work area/laboratory (assembling products, tools and equipment)

*Ingredients:* properties and functions: emulsions/emulsifiers; preservatives; dyes and pigments; essential oils; surfactants; humectants; antioxidants; UV filters; functions

*Tools and equipment:* measuring equipment (measuring cylinder, pipette, syringe, balance); thermometers; basic glassware (beakers, stirring rods); packaging materials; heat source; heating vessels; mixing jugs; spoons; blenders; scales; moulds; mould liners; containers

*Formulations for beauty therapy products:* skincare (creams/moisturiser, toner, cleanser, exfoliator, soap); coloured cosmetics (eye cosmetics, lip cosmetics); other cosmetic products eg blusher, nail varnish

## 2 Be able to make and test beauty therapy products

*Health and safety practices:* risk assessment; sterilisation and sanitation methods; safe use of chemicals/ingredients, tools and equipment; safe use of tools and equipment; Health and Safety at Work Act (HASAWA) 1974; The Personal Protective Equipment (PPE) at Work Regulations 1992; Control of Substances Hazardous to Health (COSHH) Regulations 2002; waste disposal; correct use of laboratory equipment; selection and recording of ingredients used according to EU directives (permitted substances); interpretation of material and ingredient safety data sheets

*Using and creating formulations:* measuring accurately; following instructions; recording; making a range of beauty therapy products; legal and regulatory issues involved in the development and sale of cosmetics (development and sale of cosmetics, legal definition of cosmetics, health and safety, Sale of Goods Act 1979, animal testing, restricted ingredients, manufacturer's instructions, hazard/allergen warning labels, critical EU requirements (Cosmetic Products (Safety) Regulations 2008))

*Product labelling:* importance of clear labelling; mandatory information and legal requirements; contraindications; recording ingredients and writing product descriptors and instructions for use

*Laboratory testing:* simple tests eg pH, density, cooling effect, examination under microscope, solubility in water of mascara, melting point of lipstick; evaluation of results in terms of consistency, colour, perfume and appearance

*Consumer testing:* preparation of questionnaires/surveys or data collection sheets; conducting tests (effects, 'value for money'); collating, analysing and presenting data

*Specialist beauty therapy products:* uses and effects of active ingredients in specialist products eg deodorants, antiperspirants, depilatories

## Assessment and grading criteria

In order to pass this unit, the evidence that the learner presents for assessment needs to demonstrate that they can meet all the learning outcomes for the unit. The assessment criteria for a pass grade describe the level of achievement required to pass this unit.

Assessment and grading criteria		
To achieve a pass grade the evidence must show that the learner is able to:	To achieve a merit grade the evidence must show that, in addition to the pass criteria, the learner is able to:	To achieve a distinction grade the evidence must show that, in addition to the pass and merit criteria, the learner is able to:
<b>P1</b> prepare themselves and the work area [SM3]	<b>M1</b> explain preparatory activities when making beauty therapy products	<b>D1</b> evaluate preparatory activities undertaken when making beauty therapy products
<b>P2</b> select ingredients, tools and equipment to make beauty therapy products [SM3]		
<b>P3</b> investigate the properties and function of different ingredients used in beauty therapy products [IE2]	<b>M2</b> compare the properties and functions of different ingredients used in beauty therapy products	<b>D2</b> evaluate the suitability of different ingredients used in beauty therapy products
<b>P4</b> describe laboratory requirements for preparing themselves and the work area		
<b>P5</b> state the ingredients, tools and equipment needed to make beauty therapy products		
<b>P6</b> describe the properties and function of ingredients used in beauty therapy products [CT2]		
<b>P7</b> explain how to work out formulations for beauty therapy products		
<b>P8</b> follow health and safety working practices		
<b>P9</b> create and use formulations to produce different beauty therapy products [CT1, CT3]	<b>M3</b> create and use formulations to produce different kinds of skincare products and coloured cosmetics	<b>D3</b> create and use formulations to produce different kinds of good quality skincare products and coloured cosmetics

Assessment and grading criteria		
To achieve a pass grade the evidence must show that the learner is able to:	To achieve a merit grade the evidence must show that, in addition to the pass criteria, the learner is able to:	To achieve a distinction grade the evidence must show that, in addition to the pass and merit criteria, the learner is able to:
<b>P10</b> design clear product labels with mandatory information [CT1, CT3]		
<b>P11</b> compare the effects and 'value for money' of commercially-produced and home-made beauty therapy products	<b>M4</b> evaluate commercially-produced and homemade beauty therapy products.	<b>D4</b> justify conclusions drawn relating to the effectiveness of commercially-produced and homemade beauty therapy products.
<b>P12</b> describe health and safety working practices		
<b>P13</b> state how to create different beauty therapy products		
<b>P14</b> describe the importance of clear product labelling		
<b>P15</b> explain the importance of conducting laboratory tests and consumer surveys to compare beauty therapy products		
<b>P16</b> compare the uses and effects of the ingredients within specialist beauty therapy products.		

**PLTS:** This summary references where applicable, in the square brackets, the elements of the personal, learning and thinking skills applicable in the pass criteria. It identifies opportunities for learners to demonstrate effective application of the referenced elements of the skills.

Key	IE – independent enquirers	RL – reflective learners	SM – self-managers
	CT – creative thinkers	TW – team workers	EP – effective participators

# Essential guidance for tutors

## Delivery

It is essential that as much as possible of this unit is delivered in a practical way, through preparative work and experiments, and therefore a laboratory will be necessary for much of the time. Learners need to become acquainted with basic equipment and methods and know about important health and safety rules before they embark on making and testing products. Some teaching of health and safety at the beginning of the unit will be necessary, but it is important that this theme continues throughout as an integral part of the unit.

For the first learning outcome, learners should investigate the nature of different classes of ingredients. They could examine emulsions under a microscope and investigate the effect of adding emulsifiers such as soap and soap-free detergents to oil-and-water mixtures. They could investigate the effects of preservatives on natural ingredients, and could measure the pH of oils in different stages of rancidity. Learners could extract essential oils from lemon peel or plants such as lavender by steam distillation in the laboratory. They could experiment with coloured filters as an aid to understanding how UV filters work in sunscreens. Learners should also investigate the ingredients, prices and properties of commercially available beauty products. This could be carried out by obtaining promotional materials, by examining packaging, and by visiting the websites of cosmetic companies and shops who sell cosmetics.

For learning outcome 2, learners are required to put what they have learnt into practice, and select beauty products, including skincare and coloured products. Learners can work in pairs or small groups if preferred and in this way a range of products could easily be obtained and compared. The quantities of ingredients used should be measured accurately and recorded, as should details of the methods used. All products should be labelled, clearly stating ingredients, indications and contraindications.

Learners should perform simple laboratory tests on their products, such as measuring pH, or melting point. Consumer testing should also be carried out but where volunteers are asked to try products commercially-produced products could be used rather than those made by learners themselves. Where homemade products are to be tested, consumer questions could be limited to low-risk criteria such as appearance, packaging, price and fragrance.

Some specialist beauty products should also be examined. Experiments using depilatory creams are best carried out in the beauty salon, and links could be made with the teaching of waxing and sugaring. Antiperspirants and deodorants could be tested in a simple and practical experiment on volunteers and links could be made to the structure of the skin and sweat glands.

Learners could produce a risk assessment before undertaking practical work, whether preparative or investigative, and safety precautions must be observed.

## Outline learning plan

The outline learning plan has been included in this unit as guidance and can be used in conjunction with the programme of suggested assignments.

The outline learning plan demonstrates one way in planning the delivery and assessment of this unit.

### Topic and suggested assignments/activities and/assessment

Introduction.

Preparing for practical work, equipment, methods, health and safety. Learners shown basic techniques and equipment, and could practise weighing, measuring, heating, and recording temperatures accurately and safely.

## Topic and suggested assignments/activities and/assessment

### **Assignment 1: Making and Testing Beauty Therapy Products (P1, P2, P3, P8, P9, P10, M3, D3).** Tutor introduction to assignment brief.

Ingredients. The idea of emulsions could be introduced using oil, water and detergent, and the effect of detergent on surface tension could also be observed. Learners could examine different emulsions under a microscope. They could experiment with preservatives using bacteria grown on agar. Essential oils can be examined and a steam distillation could be performed using lavender or orange peel. Learners could research the properties, cost and uses of common ingredients using the internet, before producing a factsheet.

Skincare products. Learners could make a range of products such as moisturiser, toner, etc. They could begin with simple given recipes and then make their own formulations. They should record all quantities, ingredients and practical details carefully, in preparation for writing a report. They should design and make labels for their products.

Coloured cosmetics. Learners could make a range of products such as lipstick, blusher, eyeshadow etc. As before, they could progress from following given instructions to developing their own formulations, and should record all their work and design labels.

Testing beauty products. Learners test a selection of products, including commercially-produced products and their own products. At least one laboratory test should be included and at least one consumer test. They should record their plans for their tests, with risk assessments, and collate and process their data in preparation for writing their report.

### **Assignment 2: Processes for Making and Testing Beauty Therapy Products (P4, P5, P6, P7, P11, P12, P13, P14, P15, P16, M1, M2, M4, D1, D2, D4).** Tutor introduction to assignment brief.

Assignment workshop(s).

## Assessment

The unit is assessed by the centre and will be subject to external verification by Edexcel.

Achievement of the assessment and grading criteria should be evidenced through contextualised, vocationally-related experiences, with tasks specifically designed with the assessment and grading criteria in mind.

The theoretical aspects of assessment for this unit can be achieved through learners completing centre-devised assignments, a portfolio of evidence or through adaptation of Edexcel assignments where available. Practical assessment criteria will require observation and completion of relevant documentary evidence by the assessor.

Assessment should be as holistic as possible, with assignments designed to cover multiple assessment criteria, even across units, where appropriate. Reference to grading criteria should be made in the assessment documentation, to ensure the criteria have been met.

P1, P2, P3, P8, P9 and P10 require learners to prepare for, make and test beauty therapy products, following health and safety practices. For P9, learners must produce at least three beauty therapy products, including at least one skincare product and one coloured cosmetic product. For M3, learners must produce the following beauty therapy products:

- skincare – cream/moisturiser, toner, cleanser, exfoliator, soap
- coloured cosmetics – eye, lip (at least one for each, such as cream eyeshadow, lipgloss)
- another product(s) – for example blusher, or an additional eye or lip coloured cosmetic.

To achieve D3, these products must be of a good quality. This must be assessed through practical observation and evidenced by a signed witness testimony. Supplementary evidence could also be provided, such as copies of product labels.

P4, P5, P6, P7, P11, P12, P13, P14, P15, P16, M1, M2, M3, D1, D2 and D3 assess learners' knowledge and understanding of making and testing beauty therapy products. These criteria could be achieved within a holistic assignment, such as a written report, detailing the making and testing of beauty therapy products. Alternatively, this could be assessed through short-answer questions.

Learners would be well advised to keep a practical notebook and write up all their experiments throughout the unit, so that collating the information into a final report would not be onerous. If preferred, writing the report could be broken down into smaller tasks which could be assessed at intervals.

Alternatively, instead of producing a report, learners could carry out a series of smaller tasks to achieve the assessment and grading criteria. For example, creating a reference guide about making and testing beauty therapy products.

It is essential that learners are given opportunities to achieve all the assessment and grading criteria through the assignments. Theoretical aspects of this unit lend themselves to cross-unit assessment.

It is recommended good practice for tutors to hold regular assignment workshops where learners bring in their assignment work and work on it, consulting with the tutor when necessary.

Signed witness testimonies and observation records must be retained for verification purposes. Supplementary evidence in the form of photographs could also be provided.

### Programme of suggested assignments

The table below shows a programme of suggested assignments that cover the pass, merit and distinction criteria in the assessment and grading grid. This is for guidance and it is recommended that centres either write their own assignments or adapt any Edexcel assignments to meet local needs and resources.

Criteria covered	Assignment title	Scenario	Assessment method
P1, P2, P3, P8, P9, P10, M3, D3	Making and Testing Beauty Therapy Products	Prepare for, make and test beauty therapy products, following health and safety practices. At least the following must be created: cream/moisturiser, toner, cleanser, exfoliator, soap, a lip coloured cosmetic product, an eye coloured cosmetic product, and a blusher.	Practical observation, with a signed witness testimony.  Supplementary evidence in form of product labels marked and authenticated by the assessor.
P4, P5, P6, P7, P11, P12, P13, P14, P15, P16, M1, M2, M4, D1, D2, D4	Processes for Making and Testing Beauty Therapy Products	Produce a report on the making and testing of beauty therapy products.	Written report, with data/results from tests, marked and authenticated by the assessor.  Supplementary evidence in the form of completed questionnaires and results from consumer and scientific tests marked and authenticated by the assessor.

## Links to National Occupational Standards, other BTEC units, other BTEC qualifications and other relevant units and qualifications

This unit forms part of the BTEC hair and beauty sector suite. This unit has particular links with the following unit titles in the hair and beauty suite:

Level 3
Scientific Principles for Beauty Therapy
Dermatology and Microbiology
Scientific Investigation
Scientific Practical Techniques

### Essential resources

Learners will need access to a laboratory with basic science equipment including a chemical balance and glassware. Purpose-made containers for cosmetics and beauty products, such as hollow pencils and small compacts, will add to the experience of making the products, and are available quite cheaply. Ingredients, recipes, containers and equipment are all easily obtainable on the internet.

### Employer engagement and vocational contexts

Learners will find it useful to have access to commercially-produced beauty products and information about them, so links with salons and cosmetic outlets will be helpful. Visits to product manufacturers would also be beneficial for learners.

### Indicative reading for learners

#### Textbooks

Begoun P – *Don't Go to the Cosmetics Counter Without Me 8th Edition* (Beginning Press, 2009)  
ISBN 9781877988349

Michalun N – *Milady's Skin Care and Cosmetic Ingredients Dictionary 3rd Edition* (Milady, 2009)  
ISBN 9781435480209

Winte R – *Consumer's Dictionary of Cosmetic Ingredients: Complete Information about the Harmful and Desirable Ingredients Found in Cosmetics and Cosmeceuticals 7th Edition* (Three Rivers Press, 2009)  
ISBN 9780307451118

#### Journals and magazines

*Guild Gazette* (Guild of Professional Beauty Therapists)

*Habia News* (Seed Publishing Limited)

*Hairdressers Journal International* (Reed Business Information)

*Health and Beauty Salon Magazine* (Reed Business Information)



## Websites

[www.aromantic.co.uk/](http://www.aromantic.co.uk/)

[www.beautyguild.com/](http://www.beautyguild.com/)

[www.habia.org](http://www.habia.org)

[www.professionalbeauty.co.uk](http://www.professionalbeauty.co.uk)

Aromantic Limited

Guild of Professional Beauty Therapists

Habia, the Standards Setting Body for the hair and beauty sector

Professional Beauty

## Delivery of personal, learning and thinking skills

The table below identifies the opportunities for personal, learning and thinking skills (PLTS) that have been included within the pass assessment criteria of this unit.

Skill	When learners are ...
<b>Independent enquirers</b>	carrying out research into the properties and function of different ingredients used in beauty therapy products [IE2]
<b>Creative thinkers</b>	exploring possibilities of the properties and function of ingredients used in beauty therapy products [CT2] generating and connecting ideas to create and use formulations to produce different beauty therapy products and design clear product labels with mandatory information [CT1, CT3]
<b>Self-managers</b>	organising time and resources, preparing themselves and the work area and selecting ingredients, tools and equipment to make beauty therapy products. [SM3]

Although PLTS are identified within this unit as an inherent part of the assessment criteria, there are further opportunities to develop a range of PLTS through various approaches to teaching and learning.

Skill	When learners are ...
<b>Independent enquirers</b>	researching the properties and prices of ingredients and products [IE2]
<b>Reflective learners</b>	adapting and improving formulations [RL3]
<b>Team workers</b>	working with others to make and test beauty products [TW1]
<b>Self-managers</b>	organising how they will make and test products and recording their experiments [SM3]
<b>Effective participators</b>	working with others to make and test beauty products. [EP6]

## ● Functional Skills – Level 2

Skill	When learners are ...
<b>ICT – finding and selecting information</b>	
Use appropriate search techniques to locate and select relevant information	researching cost and properties of ingredients
Select information from a variety of sources to meet requirements of a complex task	researching cost and properties of ingredients
<b>ICT – developing, presenting and communicating information</b>	
Enter, develop and refine information using appropriate software to meet requirements of a complex task	collating and processing results from tests
Combine and present information in ways that are fit for purpose and audience	producing a factsheet about ingredients
<b>Mathematics – representing:</b>	
Understand routine and non-routine problems in familiar and unfamiliar contexts and situations	costing formulations of beauty products
<b>Mathematics – analysing</b>	
Apply a range of mathematics to find solutions	costing formulations of beauty products calculating yield adapting and scaling recipes comparing results from tests on different products
<b>Mathematics – interpreting</b>	
Draw conclusions and provide mathematical justifications	costing formulations of beauty products comparing results from tests on different products
<b>English – Writing</b>	
Write a range of texts, including extended written documents, communicating information, ideas and opinions, effectively and persuasively	writing reports.