

**LO1**

**Understand the role of cosmetic ingredients**

**Common cosmetic ingredients** - examples include: phthalates, parabens.

**The function of cosmetic ingredients** - such as: preservation, antioxidants, soothing agents, stimulating, antiseptic, astringent.

**The safety of cosmetic ingredients:** Some ingredients are classed as prohibited and restricted in the UK e.g. hydroquinone, hydrogen peroxide, benzyl salicylate, citronellol.

**Ingredients that are classed as toxic in the UK include:** formaldehyde, parabens, phthalates, triclosan, coal tar.

**The effects of dangerous and toxic cosmetic ingredients:** irritated skin, rashes, redness on the skin, difficulty breathing, acne, bitterness on the tongue, allergies, UV sensitivity, internal organ damage, autoimmune disease, hormonal imbalances, reproductive problems, carcinogenic.

**Ingredients derived from animal products:** retinol, gelatin, lanolin, hyaluronic acid, keratin.

**Reasons why animals are used for testing cosmetic ingredients:** medical field has tested on animals for a long time, practising surgical procedures and testing medicines and cosmetics for safety. Companies test compounds to determine whether the substances will cause an allergic reaction or severe adverse reaction if applied to skin, hair and nails

**Alternative safety testing for cosmetic ingredients:** reliable and realistic alternative safety tests for cosmetic ingredients, non-animal test methods, include using human cells and tissue studies on human volunteers and growing artificial human skin.

**The pH value of cosmetic products:** acids and alkalis.

**LO2**

**Understand the structure and function of the integumentary system**

**Structure and function of the skin** - Epidermis - is the top layer of the skin, it is made up of 5 layers (basal cell layer, prickle cell layer, granular layer, clear layer, horny layer).

**Dermis** - is the middle layer of the skin, it is made up of 2 layers and contains many appendages including sweat glands, sebaceous glands, hair follicles, arrector pili muscles, nerve endings, dermal papilla, a rich blood supply.

**Subcutaneous layer/Hypodermis** - is the lower layer of the skin, it is made up of adipose tissue, (fat cells which act as energy reserves and provide protection to the underlying structures).

**Functions of the skin** - secretion, heat regulation, absorption, protection, excretion, sensation and vitamin D production.

**Infectious skin conditions** - examples include: ringworm, cold sores, impetigo, scabies (infestation) - Non-infectious skin conditions - examples include: eczema, dermatitis, psoriasis, acne.

**Characteristics of skin types**

**Balanced** - fine texture, no visible pores, even colour, no blemishes

**Oily** - shiny, enlarged pores, congestion, blackheads (comedones), sallow appearance

**Dry** - lack of oil in the skin, dry to touch, thin, flaky patches, fine texture, broken capillaries and whiteheads (milia)

**Combination** - usually oily T-zone is present with dilated pores and blackheads, normal to dry skin on the cheeks.

**Characteristics of skin conditions** -

**Dehydrated** - skin lacks moisture, looks dull, may feel dry, itchy and tight, fine lines are visible, lacks elasticity

**Sensitive** - visible as redness on skin with low levels of pigmentation and darker patches

**The structure and the function of the hair** -

**Cuticle** - outermost layer of the hair, protects the hair shaft)

**Cortex** - middle layer of the hair, forms the bulk and contains the pigment of the hair

**Medulla** - central core of the hair, contains soft thin transparent cells

**Hair bulb** - forms the base of the hair follicle, contains living cells that divide and grow

**Inner/outer root sheath** - surrounds and protects the growing hair

**Dermal papilla** - surrounded by the hair bulb, provides the blood supply necessary for hair growth

**Hair conditions** -

**Chemically damaged** - coarse texture, dull, split ends, tangles easily, hair breakage/loss, weak.

**Environmentally damaged** - dull, coarse texture, split ends, hair loss, no elasticity.

**Non-chemically treated hair** - completely unprocessed, unpermed/uncoloured/ untreated, smooth texture, shiny, holds curl well, relatively easy to comb while wet, good elasticity, no breakage.

**Dry hair** - dull, breaks and splits easily, coarse texture.

**Structure of the nail**

**Nail plate** - found on top of the nail bed, protects the nail bed.

**Cuticle** - found at the base of the nail, protects the matrix from infection

**Nail wall** - found at the sides of the nail plate, cushions and protects the nail plate and grooves

**Nail bed** - found under the nail plate, provides the rich blood supply

**Free edge** - extends beyond the fingertip protects the fingers and toes

**Matrix** - living part of the nail, produces new nail cells

**LO3**

**Understand the development of hair and beauty products**

**Historical timeline**

**Ancient Egyptians** - both men and women wore make-up, the higher the status of the person, the heavier the application of make-up. Wigs were worn to declare the status of the person.

**Ancient Greeks and Romans** - olive oil was mixed with ground charcoal, soot or ash to make eyeshadow, eyebrow filler and eyeliner, to create heavy dark eyebrows or a unibrow.

**Renaissance period** - blonde hair was angelic, substances such as alum, sulphur and soda were commonly used to lighten the hair. White lead powder was used to create a pale ivory skin.

**Victorian era** - Queen Victoria publicly declared that make-up was improper and vulgar. Hair was washed with cool water and vinegar. Sparse eyebrows and eyelashes were improved by using mercury as a nightly eye treatment.

**Twentieth century** - bright red lips were an iconic look of the early twentieth century. Eyelashes were heavily defined using a wax-based cake mascara. The first lip gloss was developed by Max Factor. The multi-step skincare system was launched in the mid twentieth century along with anti-ageing products.

**Twenty first century** - the smoky eye look was introduced along with eyelash extensions and eyebrow pomade to create perfectly defined eyebrows. Heat defence leave-in conditioners and heat protection sprays helped to maintain smooth sleek hair.

**Environmental sustainability**

Sustainable and ethical beauty and hair products/brands (vegan, natural/ hypoallergenic, organic, cruelty free, alcohol free, dermatologically tested).

**Effects on the environment**

Social and environmental impact of palm oil farming - examples include: rainforest destruction, damage to climate, endangering life of primates. The impact on the planet of pollution - examples include: landfill, air pollution, pollution of waterways and oceans with non-biodegradable chemical and products.