

# Worksheet: Skin Colour

Tip: Link this with the Epidermis Model Making Activity.

Answers:

Read the article on different skin colours and answer the following questions:

1. List three things which influence skin colour: melanin, carotene and capillaries
2. Define what melanin is and where it comes from: melanin is a pigment. It is produced in the melanocytes within the stratum germinativum.
3. How does melanin influence skin colour: the melanin produced = the darker the skin
4. Explain why darker skin ages less quickly than lighter skin: Darker skins have more melanin which acts as protection from the damaging rays of the sun. More melanin means more protection and therefore less ageing.

## **English**

Literacy: Identifying key points within a text.

Language: vocabulary

## **Equality & Diversity**

Discuss different skin colours from different ethnic origins

# What Gives Skin its Colour?

Read the information below on different skin colours and answer the following questions:

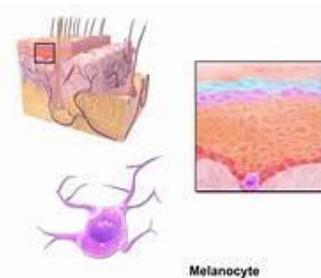
1. List the three main things which influence skin colour:
2. Define what melanin is and where it comes from:
3. Describe how melanin influences skin colour?
4. Explain why darker skin ages less quickly than lighter skin.

## **Stretch Yourself**

How would you explain to a client the importance of wearing a SPF factor every day?

## The Colour of Your Skin

**Melanocytes** are cells found in the stratum germinativum (basal layer) of the epidermis. They produce a substance called **melanin** which is a pigment found in skin, eyes and hair. Melanocytes comprise from 5-10% of the stratum germinativum (basal layer) of the epidermis. The difference in skin colour between light and dark skin is not due to the number of melanocytes but the amount of melanin that is produced. This amount is genetically determined. A light skinned person will produce a small amount of melanin and a dark skinned person will produce a large amount.



When you go out into the sun, the UV rays stimulate melanocytes to produce more melanin. This is why your skin goes a darker colour in the sun, more commonly known as a sun tan. The melanin is trying to protect you from the sun's damaging rays by deflecting or absorbing them. Unfortunately, by the time enough melanin is produced your skin is already damaged and this could result in a sun burn. People with darker skin naturally have more melanin already in their skin which protects them from the damaging rays of the sun. This means that they age a lot more slowly than people with lighter skin. They have built in sun protection!

Another pigment which affects the colour of the skin is **carotene**. Carotene absorbs light and also creates a yellow hue. People with Asian skin have more of this pigment.

Finally, the red blood cells in the superficial **capillaries** produce a reddish tint in the skin.

