



# SUNSCREEN AND UV LIGHT

# SUNSCREEN AND UV LIGHT

## What you need:

- 1 A security pen
- 2 A UV light or torch
- 3 Sunscreen (SPF 15 or above)

## What to do:

- 1 Draw something on your hand using the invisible security pen.
- 2 Shine the UV light on your hand.  
What happens?
- 3 Now cover the picture with sunscreen.  
What do you see?
- 4 What happens when you use body lotion instead?

## How it works:

The ink in the security pen reflects high frequency ultraviolet light (UV), so it can only be seen when you shine the UV light on it. When you cover the picture in sunscreen the UV light can't get through and it disappears. This is because sunscreen contains chemicals that absorb the UV light and stop it getting to your skin. Body lotion doesn't contain any of these chemicals so it won't cover up the picture. It is important to wear sunscreen when you go out in the sun because the UV rays in sunlight can damage your DNA and cause sunburn and skin cancer.

<http://rsc.li/learn-chemistry>  
and search for 'sunscreen'

**As with all science experiments, make sure you are supervised by a responsible person. And remember to have fun!**