**UV LIGHT**

The ultraviolet band is broken into three types referred to as UVA, UVB, and UVC. The most harmful of these three, UVC light, is absorbed by the atmosphere and does not reach the Earth’s surface. UVA light is deep-penetrating and causes tanning, wrinkles, and some forms of skin cancer. UVB light is also responsible for many skin problems such as sunburns and several forms of skin cancer.

 UV light and clothing.

1. You will measure the levels of UVA and UVB light that can pass through fabrics.
2. How well do your current clothes and swimming suits protect your skin?
3. New fabrics are being introduced to the clothing market that claim to block all UV light. There are additives to put into your wash to make your clothes more efficient at blocking UV light. Are these added expenses needed?

Sunscreens

Sunscreens are available in many different types and with many different levels of protection. The most common measure of protection from UVB light is the SPF factor. Sun protection factor describes the increased amount of time you can be in the sun before your skin starts to burn. For example, SPF 8 means that you can be out in the sun eight times longer before burning than you would without using any protection. Products range from SPF 0 To SPF 50 or higher.

1. Measure the amount of UVB light that passes through various sunscreens. Compare this with the amount of UVB light from direct sun and analyze the relationship between them.
2. According to your data, would a sunscreen labeled SPF 50 block twice as much UVB light as SPF 25? Why or why not.
3. Did any other factors such as being “waterproof” have any effect on the UVB measurements?
4. Test the same sunscreens for their degree of UVA protection.

Sunglasses

UV light can also damage your eyes. How do you protect your eyes? Do sunglasses do a good job of blocking UV radiation? Are expensive sunglasses better than cheap sunglasses? Are sunglasses better than regular glasses?