

# Cancer Research UK's Primary School **Teacher Notes**



## Overview

These guidelines will help teaching staff to use our primary school resources effectively. They contain an explanation of why sun protection is important in schools and background information about sun protection for teachers.

Our teaching resources aim to:

- Provide teachers with easy to use activity plans and worksheets
- Teach children about the dangers of too much sun
- Show children how they can make choices to protect their skin from the sun
- Increase skills and knowledge in line with the national curriculum

Activity plans and worksheets can be downloaded from our website at: [www.sunsmart.org.uk/schoolsandchildren/](http://www.sunsmart.org.uk/schoolsandchildren/)

## Sun protection in schools

### Why is sun protection important?

Skin cancer is one of the most common cancers in the UK and the number of cases is rising at an alarming rate. The good news is that the majority of these cases could be prevented. Most skin cancers are caused by UV radiation from the sun. If we protect ourselves from the sun then we can reduce our risk. This is particularly important for children and young people whose skin is more delicate and easily damaged.

Sunburn in childhood can double your risk of skin cancer. You will not see the damage immediately because skin cancer can take years to develop. But children who are overly exposed to the sun now are storing up problems for the future.

### What is the SunSmart campaign?

SunSmart is the national skin cancer prevention campaign run by Cancer Research UK. We are funded by the UK Health Departments to communicate the importance of sun protection to key groups nationwide.

Our work with schools has been a vital part of the SunSmart campaign since our launch in 2003. We are dedicated to supporting schools through our school sun protection policies, teaching aids and free resources.

Our information is based on the SunSmart code, which contains five key prevention messages:

- S**pend time in the shade between 11 and 3
- M**ake sure you never burn
- A**im to cover up with a t-shirt, hat and sunglasses
- R**emember to take extra care with children
- T**hen use factor 15+ sunscreen

### The role of schools

*Children typically spend more time outdoors than adults*

Experts agree that sunburn in childhood increases your risk of skin cancer in later life. Children generally spend more time outdoors than adults and are often outdoors during the most dangerous UV hours over lunchtime. Since children are in school five days a week, much of this sun exposure will occur whilst children are in teachers' care. So it is extremely important that

schools take steps to limit children's UV exposure whilst still encouraging them to enjoy being outdoors.

### *Schools play an important role in learning about making healthy choices*

In order to make healthy choices children need to be given information about what is healthy and what is not. They also need to learn how to make decisions and how to recognise what other factors influence their decisions. Much of this sort of learning takes place in schools.

### *Schools can encourage the formation of healthy habits*

Children learn healthy behaviours at school through daily routines and watching teachers as role models. For example, if a child (and their teacher) always put on a hat before going outside during the summer term, then the child is more likely to wear a sunhat at home and in the future.

### *Schools can provide environments that help children make healthy choices*

We cannot expect children to take sole responsibility for their sun protection. Creating a healthy environment can encourage children to make healthy choices. For example, providing shady areas in the playground can help with sun protection.

More about a whole school approach to sun protection can be found in Cancer Research UK's SunSmart Guidelines for Primary schools.

### Using these teaching resources

Primary school teachers have told us that sun protection teaching is often unplanned and in response to periods of sunny weather. Many teachers also said that they weren't aware of any teaching resources that dealt with sun protection. This is why we have developed easy to use sun protection activities for use in primary schools. The resources were produced with the help of an educational specialist and feedback from teachers themselves.

### Resources available for primary school teachers include:

3 SunSmart activity plans with accompanying worksheets:

- Sun protectors
- Shadow survey
- SunSmart pop-up books

6 additional SunSmart worksheets:

1. SunSmart word scrabble and colouring in
2. SunSmart sleuth word search
3. Make your own paper hat
4. SunSmart spot the difference
5. Join the dots beach picture
6. SunSmart crossword
7. Draw yourself being SunSmart
8. SunSmart code – what do these drawings mean?
9. SunSmart hat colouring in

### How do these activities fit with the national curriculum?

SunSmart activities have many links to the PHSE, science and DT curricula. The three full activities we provide are all mapped to the English curriculum for key stages 1 and 2, as summarised in the table below. Teachers in Northern Ireland, Wales and Scotland may find their curriculum has different wordings but covers similar topics.

Activity	Curriculum links	Work Sheet
<b>Sun Protectors</b> Designing sun protectors to use on holiday	DT PSHE	DT planning sheet
<b>Shadow Survey</b> Measuring shadow lengths around the school to work out safe times of day and find shady places	Maths PSHE Science	Table to complete
<b>SunSmart Pop-up Books</b> Producing a SunSmart pop-up book about sun protection for parents	English DT PSHE	Grid for planning the text

### Making these resources work for you

The nine stand alone SunSmart worksheets can be used in class or set as homework. The three more comprehensive activity plans include suggestions to help teachers prepare their sun protection lessons.

To get the maximum enjoyment and results from your sun protection lessons you may also want to consider:

- Suggesting your school develops their own Sun Protection Policy
- Starting off a week of sun protection activities for the whole school with a SunSmart themed assembly
- Involving parents in sun protection by sending letters home

### Other resources available

The SunSmart website, [www.sunsmart.org.uk](http://www.sunsmart.org.uk), is the first port of call for all resources to do with sun protection. On the website you will find:

- More information about the SunSmart campaign including press releases and celebrity supporters
- More information about skin cancer and sun protection
- A special 'schools and children' section with details of our schools programmes
- Downloadable guidelines to help you develop your own Sun Protection Policy
- An order form for free postcards and posters in large quantities in our 'Resources' section

## Background information for teachers

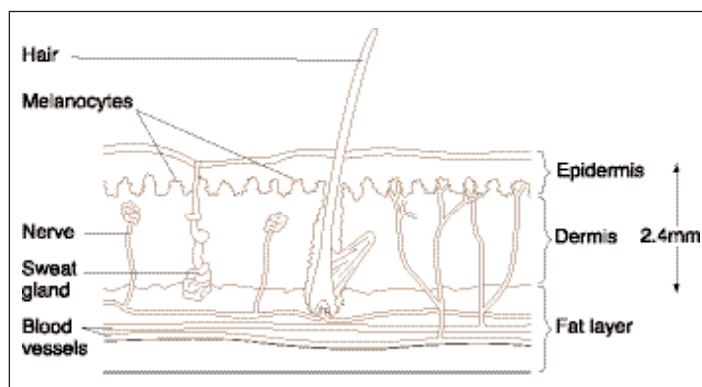
This section of the teacher notes provides more information about skin cancer and sun protection. We do not expect you to use all of this information in the classroom. But you may find the following useful for increasing your own knowledge and for answering questions from both pupils and parents.

### The Skin

Our skin forms a water-resistant protective layer over our whole body. There are two layers in the skin.

- The **epidermis** is the thin outer layer of the skin that we can see. This layer is constantly shedding skin cells which are replaced from below.
- The **dermis** is the thicker inner layer connected to the blood and lymph supply. This layer also contains nerves, sweat glands, and hair follicles.

Melanocytes, found in the lower epidermis, are cells that produce



a pigment called melanin. Melanin production increases when skin is exposed to UV rays, giving the skin a darker colour.



*The skin is the largest organ in the body. If you stretched it out it would measure 11-18 square metres.*

*The thickness of the epidermis varies. For instance it is quite thick on the soles of the feet and much thinner on the eyelids.*

### UV Rays

Sunlight is made up of different types of rays:

- visible light which we can see
- invisible infrared radiation which makes us feel warm
- ultraviolet radiation which cannot be seen or felt on your skin.

Ultraviolet radiation, which we talk about as UV rays, can damage your skin. UV rays penetrate deep into the skin layers, causing changes that can lead to sunburn, skin ageing, eye damage and skin cancer.

There are three different types of UV rays: UVA, UVB and UVC. UVC rays are very dangerous, but they are filtered out by the ozone layer. Experts now think that UVA and UVB rays are both responsible for giving us sunburn and skin cancer.

Dangerous levels of UV rays are more common during the summer months (May to September), in the middle of the day (11-3) and at high altitudes.

UV rays are also given out by sunbeds. This is why we believe sunbeds are dangerous and cannot be used without risk.



### Popular myths

**You can't burn on a cloudy day.** This just isn't true – some UV rays still travel through cloud so you can burn even when it doesn't seem sunny.

**If the sun doesn't feel hot you don't need to worry.** Again, this isn't true – infrared, which makes you feel hot, is different to UV rays which burn your skin. You can still burn on a cool day, particularly if it is cool because you are at a high altitude.

## Skin cancer

Skin cancer develops when skin cells are damaged by UV rays. Most skin cancers are caused by too much sun exposure. Many of these cancers could be prevented.

There are two main types of skin cancer:

- malignant melanoma – the most serious type of skin cancer
- non-melanoma skin cancer – more common and easily treated

You are more at risk of skin cancer if you have fair skin, lots of moles or freckles, or a family history of skin cancer. But over-exposure to UV rays is harmful for everyone so we can all benefit from taking precautions.

More and more people are getting skin cancer in this country. The British Association of Dermatologists estimates that there are around 100,000 new cases of skin cancer diagnosed every year in the UK.

As with most cancers, skin cancer is more common in older people. However, the damage you do to your skin while you are young can affect your risk of skin cancer in later life.

If you notice any changes to an existing mole or new skin growths, then go to see your GP. For more information about checking your moles visit:

[www.sunsmart.org.uk/skincancer/skincancer/](http://www.sunsmart.org.uk/skincancer/skincancer/)



**There are more skin cancer deaths in the UK than in Australia, even though Australia has more cases of the disease.**

*Malignant melanoma, the most serious form of skin cancer, is the second most common cancer amongst 15-34 year olds.*

## UV Protection

The SunSmart code was designed with the help of experts to cover the different types of sun protection. We recommend combining different approaches to minimise primary age children's exposure to high levels of UV rays.

Here are the different points of the SunSmart code explained in more detail:



### Spend time in the shade between 11 and 3

One of the best ways to avoid the sun's harmful rays is to seek shade under trees, canopies, umbrellas, or indoors. We recommend planting trees and putting up shade structures in the playground to create as much shade as possible.



### Make sure you never burn

Sunburn can double your risk of skin cancer. It's easy to burn when you least expect it, often when you're

not deliberately sunbathing. Remember that you can still burn on a cloudy day.



### Aim to cover up with a t-shirt, hat and sunglasses

Covering up with a t-shirt is a good way to protect children's shoulders and upper arms. A wide-brimmed hat will shade the face and neck. Sunglasses can protect the eyes from UV rays – but check they offer 100% UV protection. Covering up is often a cheap and practical way to introduce sun protection into schools.



### Remember to take extra care with children

Young skin is very delicate and easily damaged by the sun. Keep babies under six months out of direct sunlight, particularly around midday. For tips on sun protection for children see:

[www.sunsmart.org.uk/staysafe/children/](http://www.sunsmart.org.uk/staysafe/children/)



### Then use factor 15+ sunscreen

There will always be times when we are out in the sun without adequate shade or cover-up clothing. This is when factor 15+ sunscreen is useful for protecting exposed skin. But remember, never use sunscreen to spend longer in the sun. It should only be used to increase your protection.

## Skin type and the UV Index

### Are children with darker skin at risk of skin cancer?

*The World Health Organisation states: "Many believe that only fair-skinned people need to be concerned about over exposure to the sun. High levels of the skin pigment melanin reduce the risk of common skin cancer for people with darker skin. However, even though the incidence of skin cancer is lower in dark-skinned people, skin cancers that do occur are often detected at a later, more dangerous stage. The risk of other health effects related to sun exposure, such as eye damage, premature ageing of the skin, and immunosuppression, is independent of skin colour."*

Children living in the UK have a wide range of skin types, from the very fair to the very dark skinned. Although fair skinned people are more at risk of skin cancer, everyone's eyes and skin can be damaged by the sun. Fair skinned children need to take extra care. But those with darker skin should still be protected from strong summer sun.

Theoretically, some children in your class may need to take more sun protection precautions than others. On a practical level though, it may be difficult to tailor different advice to different pupils. One useful tool for assessing relative risk from the sun's UV rays is the UV Index.

### Knowing what the UV ratings mean for different skin types can be helpful

Weather forecasters use the UV index to describe the strength of the sun's rays on a particular day. The top number for high levels of UV is 10. We rarely get this sort of rating in the UK. In the winter UV levels may be as low as 1 or 2. This means the sun's rays are not very strong and you don't need to think about protection as much.

UV ratings are usually shown as a number in a triangle on the weather map. How dangerous the UV level is for you depends on your skin type. The fairer you are, the higher your burn risk.

The table below will help you work out how much sun protection different skin types need on any given day.

**Table showing how your risk of burning corresponds to the UV Index ratings**

Index	Skin type:			
	I and II	III and IV	V	VI
1, 2	Low	Low	Low	Low
3, 4	Medium	Low	Low	Low
5	High	Medium	Low	Low
6	High	Medium	Medium	Low
7	Very high	High	Medium	Medium
8	Very high	High	Medium	Medium
9	Very high	High	Medium	Medium
10	Very high	High	High	Medium

Our 'preventing skin cancer' leaflet has colour pictures of the six different skin types. You can order these leaflets at [www.cancerresearchuk.org/leaflets](http://www.cancerresearchuk.org/leaflets)

Use the following descriptions as a guide:

**Type I** - Often burns, rarely tans. Tends to have freckles, red or fair hair, blue or green eyes

**Type II** - Usually burns, sometimes tans. Tends to have light hair, blue or brown eyes

**Type III** - Sometimes burns, usually tans. Tends to have dark brown eyes and hair

**Type IV** - Rarely burns, often tans. Tends to have dark brown eyes and hair

**Type V** - Naturally brown skin. Often has dark brown eyes and hair

### Vitamin D

Recently, there have been lots of reports in the news about the importance of vitamin D.

Sunlight helps your body produce vitamin D. But you don't need to sunbathe to get your vitamins! Short periods of time outdoors 2-3 times per week should be enough. And you can also get vitamin D from foods such as eggs, oily fish, margarine and certain cereals.

## Summary of key points

- Skin cancer is very common and the number of cases is increasing
- Most cases of skin cancer could be prevented
- Protect yourself from the sun by following the SunSmart code:
  - S**pend time in the shade between 11 and 3
  - M**ake sure you never burn
  - A**im to cover up with t-shirt, hat and sunglasses
  - R**emember to take extra care with children
  - T**hen use factor 15+ sunscreen
- If nothing else, make sure children cover up with a hat and t-shirt
- Adopt a whole school approach by developing your own school sun protection policy
- For more information and free resources visit [www.sunsmart.org.uk](http://www.sunsmart.org.uk)

