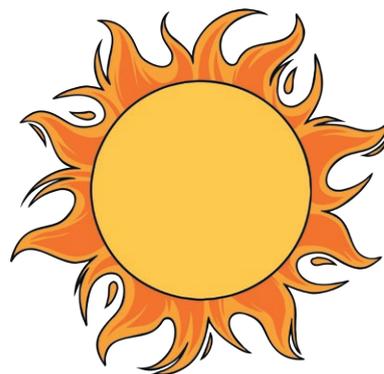


# Sun Safety

It is important for us all to be in the sun sometimes because the sun provides us with vitamin D. Vitamin D helps our bodies to absorb calcium which makes our bones strong and healthy. However, being in the sun too much can cause skin damage, eye damage and even skin cancer. Parents need to teach their children how to stay safe in the sun and how to protect their skin from ultraviolet (UV) rays.



## Dangers of the Sun

The light from the sun has invisible UV rays. These rays are what make our skin tan and burn. There are three types of ultraviolet rays: UVA, UVB and UVC.

### UVA rays

UVA rays break through the protective layer of the atmosphere (the ozone layer). These cause skin aging and contribute to skin cancer.

### UVB rays

These are also dangerous and can cause sunburn and eye damage. They can also cause skin cancer. UVB rays do not pass through the ozone layer as easily as UVA rays. However, enough get through to cause serious damage.

### UVC rays

These are the most dangerous but they cannot break through the ozone layer and therefore don't reach earth.



# Sun Safety

## Melanin

Our skin has melanin in it and its job is to soak up dangerous UV rays before they cause skin damage. If you have lighter skin, you have less melanin. If you have darker skin, you have more melanin. People with lighter skin need to do more to protect their skin from the sun.

Our skin tans in the sun as more melanin is produced to protect it. If our skin is exposed to too much sun, the melanin can no longer protect it and we begin to burn.



## How to Protect Your Skin

There are some simple ways to protect your skin and prevent sun damage:

- Stay out of the sun between 10 a.m. and 4 p.m. as this is when it is at its hottest.
- Apply sunscreen regularly, especially if you are in and out of water.
- Wear a hat to protect your head and face from the sun's UV rays. Remember that your scalp can burn too!
- Wear sunglasses to protect your eyes. Buy sunglasses that provide 100% UV protection.

Remember...

Use a sunscreen that has an SPF of 30 or higher and make sure that it protects against UVA and UVB rays.





# Sun Safety Answers

1. What vitamin do we get from the sun? Tick one.

- vitamin B
- vitamin D**
- vitamin C
- vitamin E

2. What does UV stand for?

**ultraviolet**

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3. Which UV ray cannot break through the earth's ozone layer? Tick one.

- UVA
- UVB
- UVC**
- all of them

4. What is in our skin that protects us from the sun?

**melanin**

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5. Explain why people with lighter skin burn more easily than people with darker skin.

**Pupil's own responses, such as: People with lighter skin burn more easily than people with darker skin because they have less melanin. Melanin protects the skin from the sun's UV rays.**

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6. Draw lines to show how you can protect different parts of your body.

Wear a hat ~~to protect your eyes.~~

Wear sunscreen ~~to protect you scalp.~~

Wear sunglasses ~~to protect your skin.~~

7. What is the minimum factor sunscreen you should wear? Tick one.

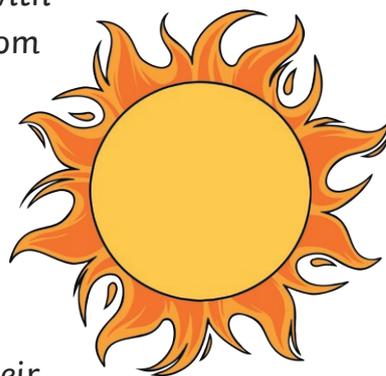
- factor 15
- factor 50
- factor 20
- factor 30**

# Sun Safety

Exposure to the sun is important as it provides us with vitamin D. Vitamin D helps our bodies absorb calcium from our food which makes our bones strong and healthy.

However, too much exposure to the sun's UV (ultraviolet) rays can cause skin damage, eye damage and even skin cancer.

Children get a lot of sun exposure before the age of 18 and so it is important that they learn how to protect their skin in the sun.



## Sun Exposure

The light that the sun provides has invisible UV rays. When these rays reach the skin, they cause it to tan or burn. Sunlight contains three types of ultraviolet rays: UVA, UVB and UVC.

- UVA rays can cause skin damage and even skin cancer. UVA rays pass through the earth's protective shield (the ozone layer) and make up the majority of our sun exposure.
- UVB rays can contribute to sunburn and eye damage. Most UVB rays are absorbed by the ozone layer, however, enough of them do pass through to cause serious damage to our skin.
- UVC rays are the most dangerous. Fortunately, these are blocked by the ozone layer and don't reach the earth.



# Sun Safety

## Melanin: The Body's Defence

Our skin has a chemical called melanin in it. When our skin is exposed to the sun, the melanin reacts and tries to absorb the dangerous UV rays. As the melanin reacts to the sun, our skin tans. If the skin is exposed to too much sun, the melanin can no longer protect it and the skin then burns.

The lighter someone's skin is, the less melanin it has. The darker someone's skin, the more melanin it has. Therefore, those with lighter skin need to take more precautions to protect their skin from the sun.



## How to Protect Your Skin

In order to protect your skin from the sun, there are several things to remember. Firstly, stay out of the sun when it is at its hottest (usually between 10 a.m. and 4 p.m.). Secondly, apply sunscreen regularly. If you are in and out of water, you will need to use a sunscreen which is water resistant so that it doesn't wash off. Thirdly, wear a hat to protect your head and face (the scalp can burn very easily and so needs to be protected) and lightweight clothes to protect your body. Lastly, don't forget about your eyes! Sun exposure damages the eyes as well as the delicate skin around it. Therefore, wear a pair of sunglasses that protect against UVA and UVB rays.



## Did You Know...?

Not all sunscreens are the same and some have less protection than others.

Check the bottle and make sure that it protects against both UVA and UVB rays.

Buy one that has a factor of at least 30; factor 50 is the highest and is known as 'sunblock'.

# Sun Safety Questions

1. What nutrient does vitamin D help our bodies to absorb? Tick one.

- vitamin E
- calcium
- iron
- vitamin C

2. Fill in the missing word.

Children get a lot of sun \_\_\_\_\_ before the age of 18 and so it is important that they learn how to protect their skin in the sun.

3. Find and copy a word that shows that we cannot see UV rays.

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4. Which UV ray are we exposed to the most? Tick one.

- UVA
- UVB
- UVC
- all of them

5. Explain why someone with lighter skin needs to take more precaution to protect their skin than someone with darker skin.

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6. Draw lines to show how you can protect different parts of your body.

- |                          |                              |
|--------------------------|------------------------------|
| Wear sunscreen           | to protect your eyes.        |
| Wear a hat               | to protect your body.        |
| Wear sunglasses          | to protect all of your skin. |
| Wear lightweight clothes | to protect your scalp.       |

# Sun Safety Questions

7. What factor does 'sunblock' have?

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8. Explain why it is important to check your bottle of sunscreen.

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# Sun Safety Answers

1. What nutrient does vitamin D help our bodies to absorb? Tick one.

- vitamin E
- calcium**
- iron
- vitamin C

2. Fill in the missing word.

Children get a lot of sun exposure before the age of 18 and so it is important that they learn how to protect their skin in the sun.

3. Find and copy a word that shows that we cannot see UV rays.

invisible

4. Which UV ray are we exposed to the most? Tick one.

- UVA**
- UVB
- UVC
- all of them

5. Explain why someone with lighter skin needs to take more precaution to protect their skin than someone with darker skin.

Pupil's own responses, such as: People with lighter skin need to protect

their skin more because they have less melanin than people with darker

skin. Melanin is what helps to protect our skin for the sun's UV rays.

6. Draw lines to show how you can protect different parts of your body.

- |                          |                              |
|--------------------------|------------------------------|
| Wear sunscreen           | to protect your eyes.        |
| Wear a hat               | to protect your body.        |
| Wear sunglasses          | to protect all of your skin. |
| Wear lightweight clothes | to protect your scalp.       |

# Sun Safety Answers

7. What factor does 'sunblock' have?

**Sunblock has factor 50.**

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8. Explain why it is important to check your bottle of sunscreen.

**Pupil's own responses, such as: It is important to check your bottle to**

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**make sure that it protects against UVA and UVB rays and that it has a**

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**factor of 30 or more.**

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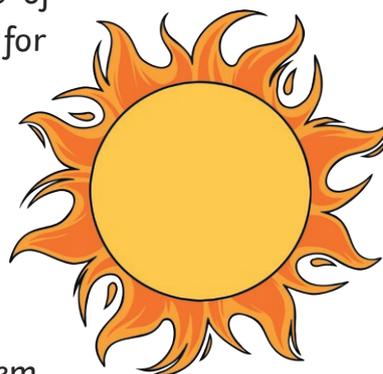
# Sun Safety

We all need some sun exposure - it's the top source of Vitamin D, which helps our bodies absorb calcium for stronger, healthier bones.

However, repeated, unprotected exposure to the sun's ultraviolet (UV) rays can cause skin damage, eye damage and skin cancer.

Most children get much of their lifetime sun exposure before age 18, so it's important for parents to teach them how to enjoy fun in the sun safely.

Taking the right precautions is very important when protecting your skin.



## Sun Exposure

The sun radiates light to the earth, and part of that light consists of invisible UV rays. When these rays reach the skin, they cause tanning, burning, and other skin damage. Sunlight contains three types of ultraviolet rays: **UVA**, **UVB** and **UVC**:

- **UVA** rays cause skin aging and contribute to skin cancer. Because UVA rays pass effortlessly through the ozone layer (the protective layer of the atmosphere, or shield, surrounding the earth), they make up the majority of our sun exposure.
- **UVB** rays are also dangerous, causing sunburn and eye damage (cataracts). They also contribute to skin cancer. Melanoma, the most dangerous form of skin cancer, is associated with severe UVB sunburns that occur before the age of 20. Most UVB rays are absorbed by the ozone layer, but enough of these rays pass through to cause serious damage.
- **UVC** rays are the most dangerous, but fortunately, these are blocked by the ozone layer and don't reach the earth.



### Melanin: The Body's First Line of Defence

UV rays react with a chemical called melanin that's found in skin. Melanin absorbs dangerous UV rays before they cause skin damage. The lighter someone's natural skin colour, the less melanin it has and the darker a person's natural skin colour, the more melanin it has to protect itself.

As the melanin increases in response to sun exposure, the skin tans. Those who are regularly exposed to the sun are at a much greater risk. Sunburn develops when the amount of UV exposure is greater than what can be protected against by the skin's melanin.

### Avoid the Strongest Rays of the Day

Seek shade when the sun is at its strongest (usually from 10 a.m. to 4 p.m.). If you are in the sun during this time, be sure to apply and reapply sunscreen. Most sun damage occurs as a result of incidental exposure during day-to-day activities, not sunbathing! Even on cloudy, cool or overcast days, UV rays travel through the clouds. Clouds don't filter out UV rays and this 'invisible sun' can cause unexpected sunburn and skin damage. People are often unaware that they're developing sunburn on cooler or windy days because the temperature or breeze keeps skin feeling cool.

Cover Up	Use Sunscreen	Use Protective Eyewear
One of the best ways to protect yourself from the sun is to cover up and shield skin from UV rays. Be sure that clothes will screen out harmful UV rays by placing your hand inside the garments and making sure you can't see it through them. Babies under 6 months should be kept out of the sun.	Select an SPF of 30 or higher to prevent sunburn and tanning, both of which are signs of skin damage. Choose a sunscreen that protects against UVA and UVB rays. For sunscreen to do its job, it must be applied correctly. So be sure to: <ul style="list-style-type: none"> <li>• Apply sunscreen whenever you are in the sun and reapply often (every 2 hours).</li> <li>• Apply a water-resistant sunscreen around water or when swimming.</li> </ul>	Sun exposure damages the eyes as well as the skin. The best way to protect eyes is to wear sunglasses. Not all sunglasses provide the same level of ultraviolet protection; purchase sunglasses with labels ensuring that they provide 100% UV protection.

# Sun Safety Questions

1. How does Vitamin D help our bodies?  

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2. What are the three types of ultraviolet rays which radiate from the sun? Which is the least dangerous and which is the most dangerous?  

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3. How does the ozone layer work to protect us from the sun's rays?  

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4. How does melanin protect the skin?  

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5. Why does sunburn happen?  

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6. When is the sun at its strongest?  

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7. True or false: Clouds filter out UV rays.  

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8. What is meant by 'invisible sun'?  

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9. What precautions should parents of babies take?  

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10. Why is it important to reduce 'tanning'?  

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11. True or false: Sunscreen should protect against UVC rays.  

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12. What should you look for when purchasing sunglasses?  

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# Answers

**1. How does Vitamin D help our bodies?**

Vitamin D helps our bodies by absorbing calcium for stronger, healthier bones.

**2. What are the three types of ultraviolet rays which radiate from the sun? Which is the least dangerous and which is the most dangerous?**

UVA, UVB, UVC. UVA are the least dangerous to humans. UVC rays are the most dangerous to humans.

**3. How does the ozone layer work to protect us from the sun's rays?**

It protects us completely from UVC rays and from some UVB rays.

**4. How does melanin protect the skin?**

Melanin absorbs dangerous UV rays before they cause skin damage.

**5. Why does sunburn happen?**

Sunburn develops when the amount of UV exposure is greater than what can be protected against by the skin's melanin.

**6. When is the sun at its strongest?**

Usually from 10 a.m. to 4 p.m.

**7. True or false: Clouds filter out UV rays.**

False

**8. What is meant by 'invisible sun'?**

Even on cloudy, cool or overcast days, UV rays travel through the clouds.

**9. What precautions should parents of babies take?**

Babies under 6 months should be kept out of the sun.

**10. Why is it important to reduce 'tanning'?**

As the melanin increases in response to sun exposure, the skin tans.

**11. True or false: Sunscreen should protect against UVC rays.**

False

**12. What should you look for when purchasing sunglasses?**

Purchase sunglasses with labels ensuring that they provide 100% UV protection.