

Name: _____

SUN SAFETY

On your own, answer the following questions:

How does the sun help us?

Can the sun be harmful?

Why do you think it is dangerous to look directly at the sun?

What do you think would happen if you looked directly at the sun?

Can you think of other ways the Sun can be dangerous?

Facts About 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:

1. **UVA** rays cause skin aging and wrinkling and contribute to skin cancer, such as melanoma. Because UVA rays pass effortlessly through the ozone layer (the protective layer of atmosphere, or shield, surrounding the earth), they make up the majority of our sun exposure.

Beware of tanning beds because they use UVA rays as well as UVB rays. A UVA tan does **not** help protect the skin from further sun damage; it just produces color and a false sense of safety.

2. **UVB** rays are also dangerous, causing sunburns, cataracts (clouding of the eye lens), and effects on the immune system. They also contribute to skin cancer. Melanoma, the most dangerous form of skin cancer, is thought to be 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.
3. **UVC** rays are the most dangerous, but fortunately, these rays are blocked by the ozone layer and don't reach the earth.

Don't Feel the Burn

Even though the sun is hot, it does cool things. It keeps us warm. It makes flowers and plants grow. It even gives us vitamin D so we can better absorb calcium into our bodies for strong bones. It does all these things by sending down light, which includes invisible **ultraviolet** (say: ul-trah-VYE-uh-lit) **rays**. These are also called **UV rays**. Some ultraviolet rays pass through air and clouds and reach the skin. When your skin's been exposed to too many of these rays, you get what's known as a sunburn. Ouch!

Some people get a sunburn faster than others because of their coloring. If you have blond or red hair, light-colored skin, and light-colored eyes, you'll tend to get a sunburn more quickly than someone with dark eyes and skin. That's because you have less **melanin** (say: MEL-uh-nun). Melanin is a chemical in the skin that protects it from sun damage by reflecting and absorbing UV rays. People with darker skin have more melanin, but even if you have dark hair, dark eyes, or darker-toned skin, you can still get a sunburn. It will just take a little bit longer.

Sunburns look bad and feel worse. They can cause blisters on your skin. They can keep you inside feeling sore when everyone else is outside having fun. They increase your chance of getting wrinkly when you get older. And worst of all, they can lead to skin cancer when you are an adult. Because getting wrinkles and getting sick don't happen right away, they can seem like things that could never happen to you. But you still need to be careful.

Prime Time

You don't need to hide from the sun completely. But you should take these two steps:

1. Always wear sunscreen.
2. Take breaks from the sun often by going indoors, covering your skin with a t-shirt or some other clothing item, or moving into the shade.

These steps are especially important between **10 a.m. (in the morning) and 4 p.m. (in the afternoon)**, when the sun's rays are strongest.

Use sunscreen with an SPF rating of 30 or higher. Put on sunscreen 15 to 20 minutes before going out in the sun. The letters SPF stand for sun protection factor, and the number rating tells you how much longer you can stay in the sun without getting sunburned.

But this isn't always true, so reapply sunscreen at least every 2 hours, just to be safe. Do this more often if you've been swimming or sweating a lot — even if the sunscreen is waterproof. And remember that you can get sunburned more quickly when you're swimming or boating because the reflection from the water makes the sun's rays stronger.

Be sure to put sunscreen all over your body. This includes some places you might not think of, like the tops of your ears, the back of your neck, the part in your hair, your face, and the tops of your feet. You may need some help reaching the back of your body so ask your parents or friends to give you a hand. If you want to block the sun's rays, wear clothing that you can't see your hand through. You may still get burned through more sheer fabrics. Wear a baseball cap or other fun hat to block your face from the sun.

Don't forget that your eyes need protection from ultraviolet rays, too. Why shouldn't you look directly at the sun? The sunlight can flood your retinas (the layer at the back of the eyeball containing cells that are sensitive to light) overstimulating the rods and cones that sense light and causing them to release chemicals that can damage the retinas. This condition is known as solar retinopathy, and it can cause permanent eye damage. Therefore, you should always wear sunglasses in the sun, and make sure they have a label saying that they block UV rays.

Your Assignment

Create a poster promoting sun safety. Your poster will be marked using the following rubric:

SUN SAFETY Poster Rubric

Name: _____

- /3 Identifies 3 dangers of the sun
- /3 Identifies 3 safety measures
- /3 Includes at least 3 visuals (diagrams, images, etc.)
- / 1 Your name
- /1 Appropriate and clear title
- /4 Colour

/15 TOTAL

Due Date: _____