

# LUMI'S DELIGHT

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**DLA**  
DAYLIGHT  
ACADEMY

e-conversion

  
CRC 325



# LUMI'S DELIGHT

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Cock-a-doodle-doo!  
It's 6 o'clock!

Time for Lumi, the light from  
the sun, to rise and shine!  
It is getting ready to reach  
the Earth - just like it does  
every day.

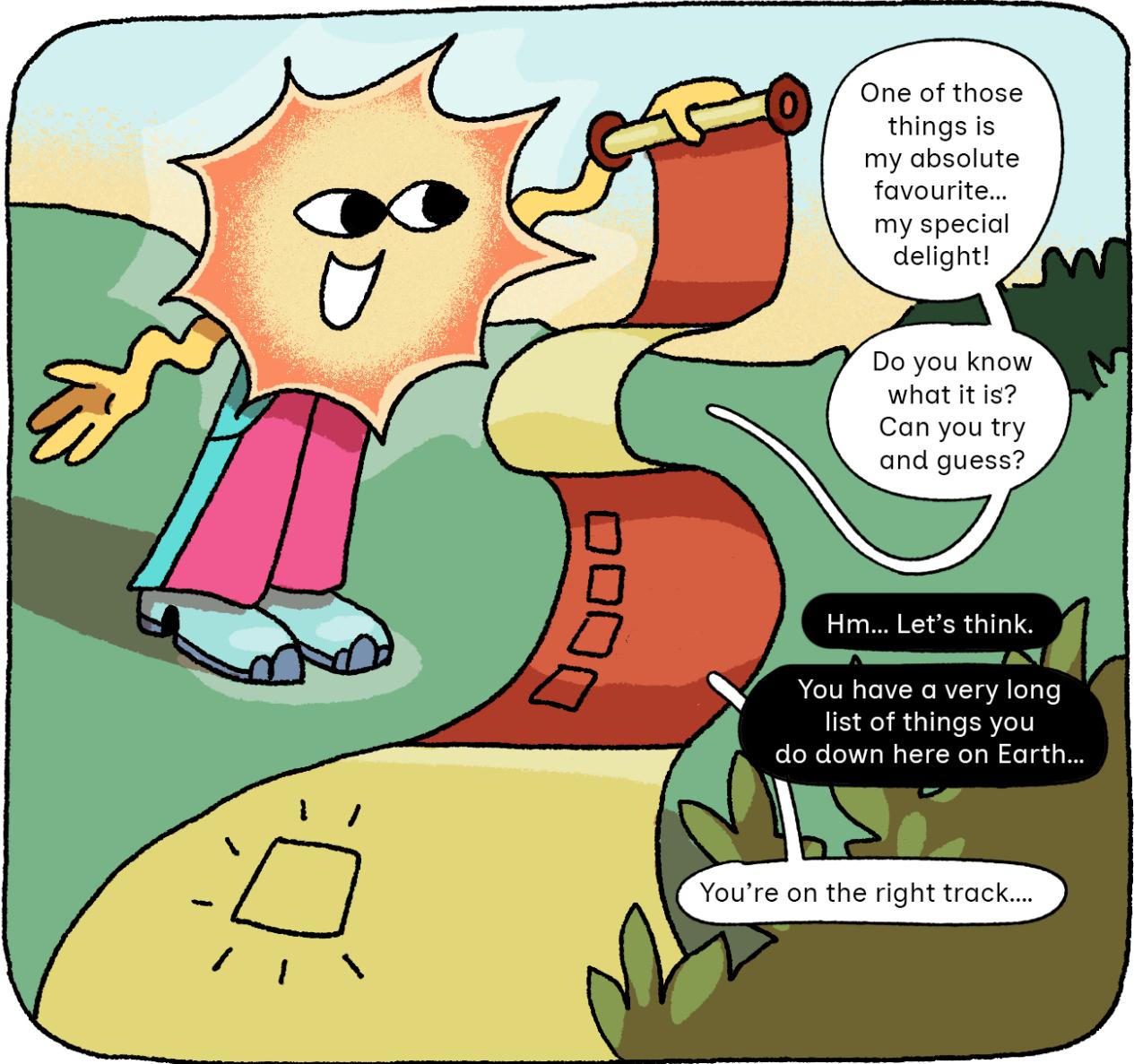


\*Yawn\*

It's only 6 am,  
but it's summer -  
I'm quite an early  
bird in summer!

Good morning Lumi!  
Building up your  
strength for today?

Yes! I need to.  
I've got a big  
day ahead.



Lumi, could your special delight be helping our eyes to see colours?

How do you do that?

I do love to show colours to all my friends with eyes! That's one of the first things I do every morning.

Sunlight moves in small waves of different colors and spreads out in all directions.

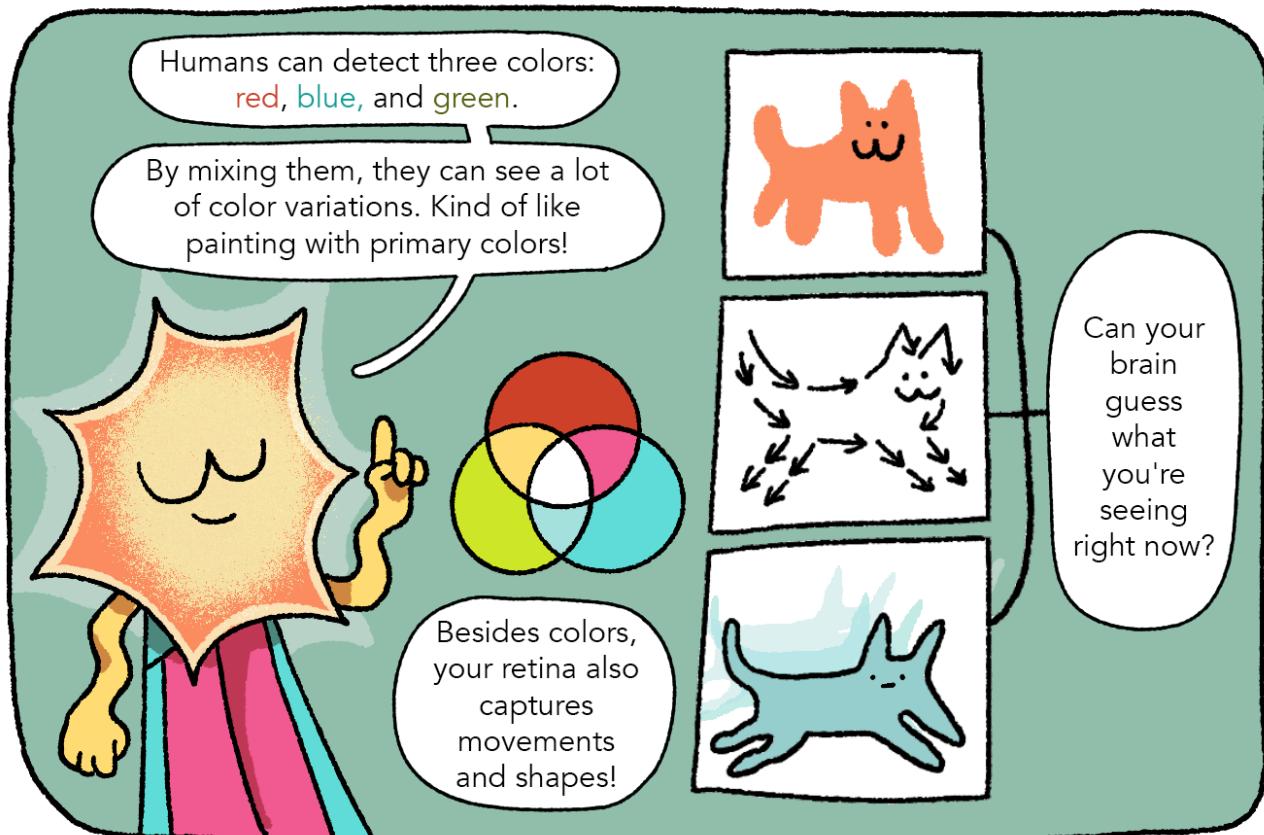
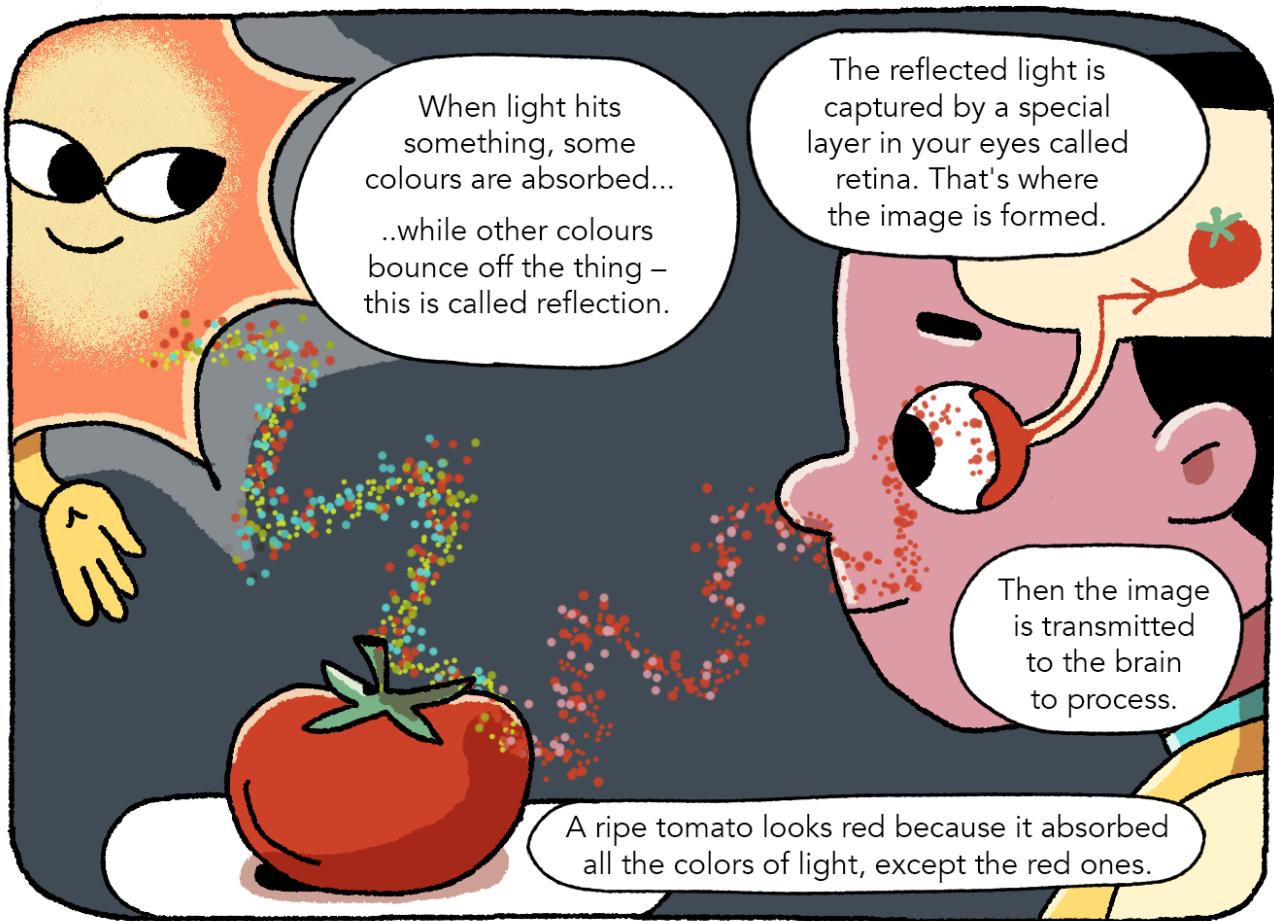
Light is made up of tiny particles called photons.

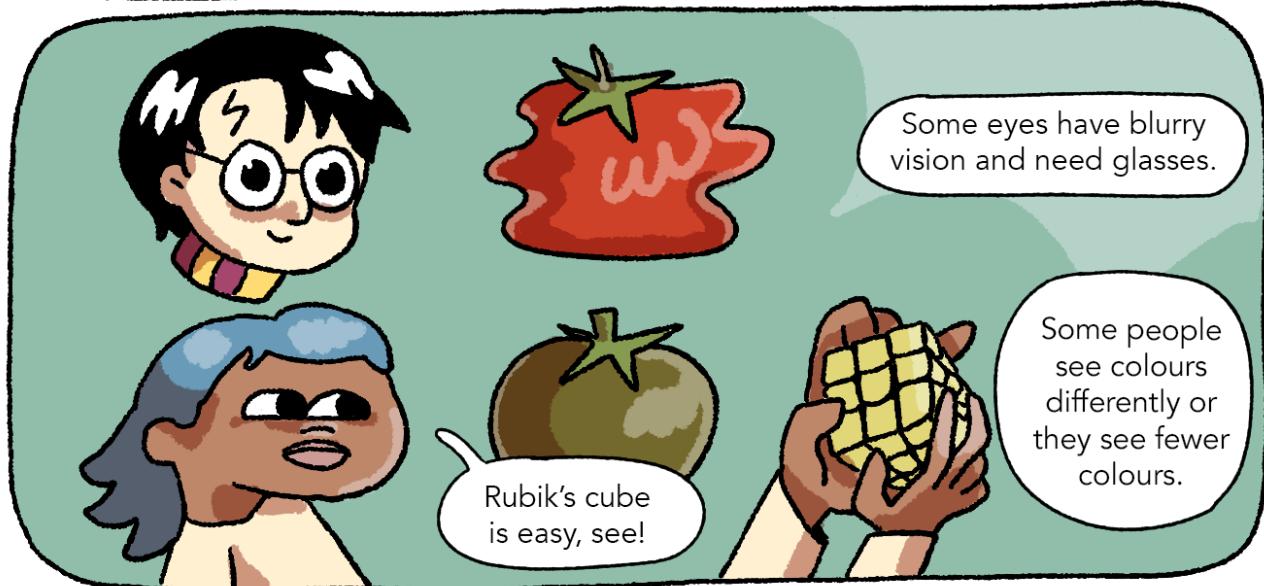
They travel at the incredible speed of 300,000 kilometers per second!

Nothing in the universe is faster.

Thanks to your eyes, you can capture some of these photons!

I think I understand... but if sunlight is composed of many different colour, how do we see things of different colours?





Shoot...  
Another try!

Let me think:  
since you like bringing  
colours to the world,  
is it your delight to draw  
rainbows in the sky ?

You're very talented  
I must say...

I love it! Still not my favorite thing to do.  
I'm just practicing colors this way!

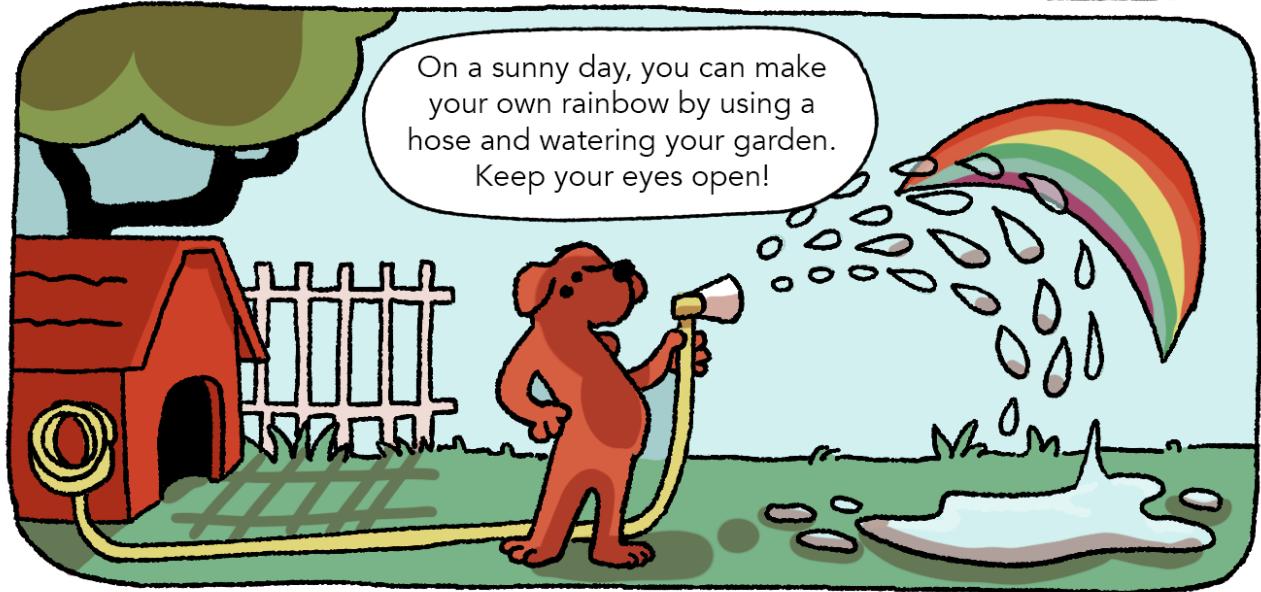
Can you spot the treasure I have  
hidden at the end of the rainbow?

But let me show you  
how they are made.

cloud

Water droplets in the sky  
split the colours of the  
light by sending them in  
different directions. That's  
what happens when you  
see a rainbow!

This means that in order  
to observe a rainbow,  
you need two things:  
sunlight and water  
droplets from rain,  
fog, or cloud!



Alright, as you bring light and beautiful rainbows to the eyes of the animals, is your delight to shine light on plants as well?

Indeed! Without me, plants couldn't survive.

Have you ever seen a plant wither away due to a lack of light?

Unlike animals, plants can't escape hungry herbivores with their legs...

They rely on the resources they can find nearby :

\*cronch\*

Noooooooo

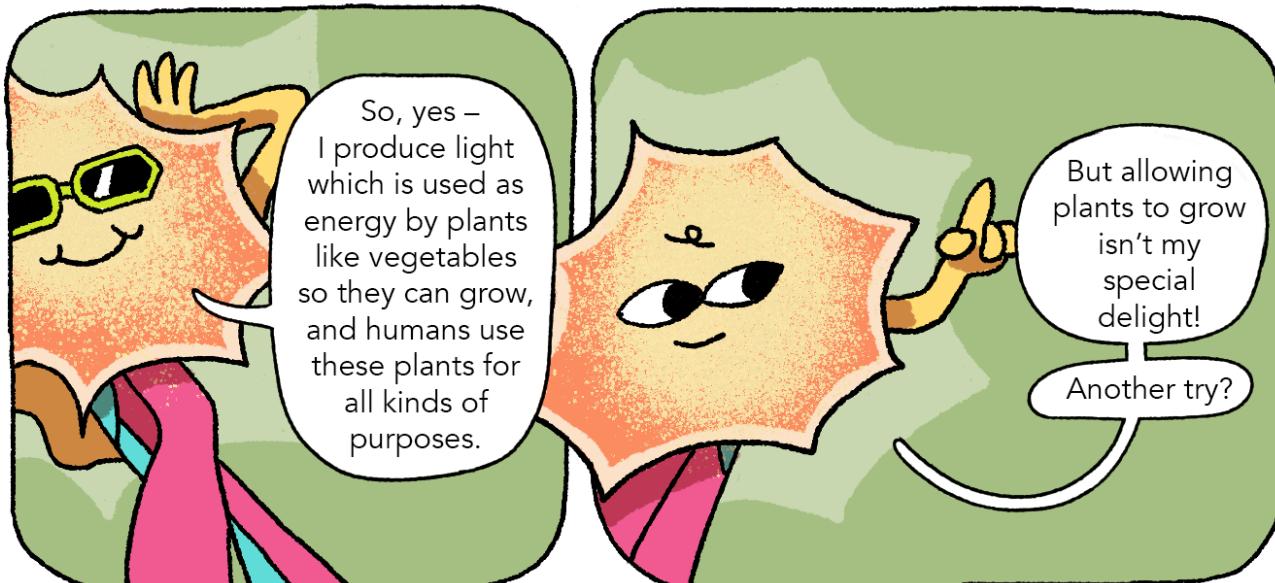
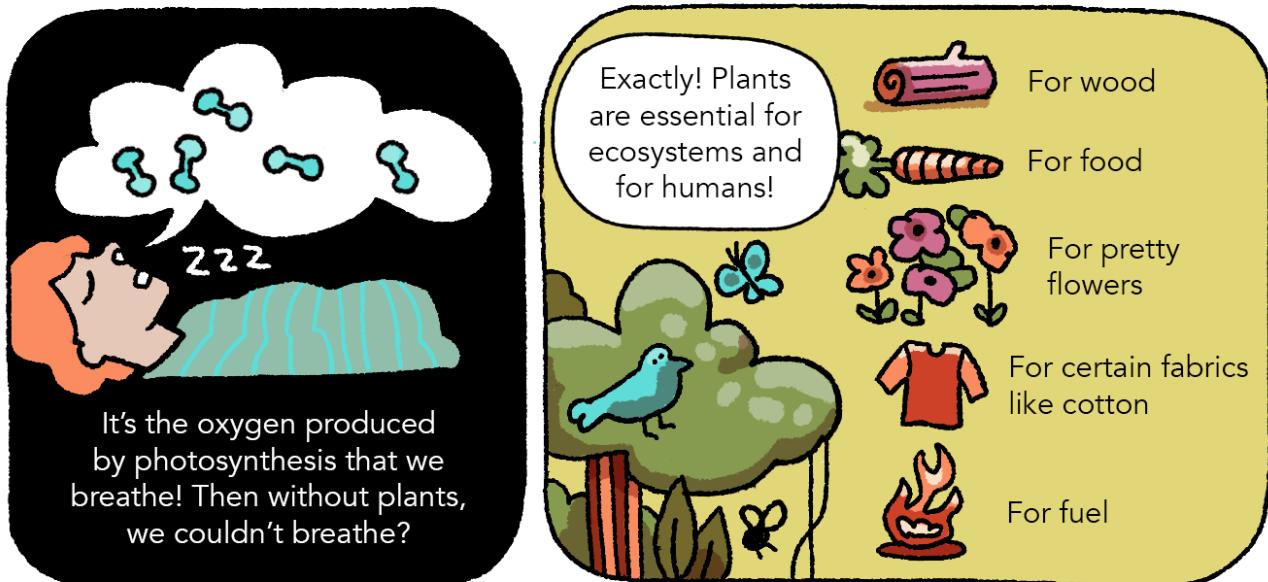
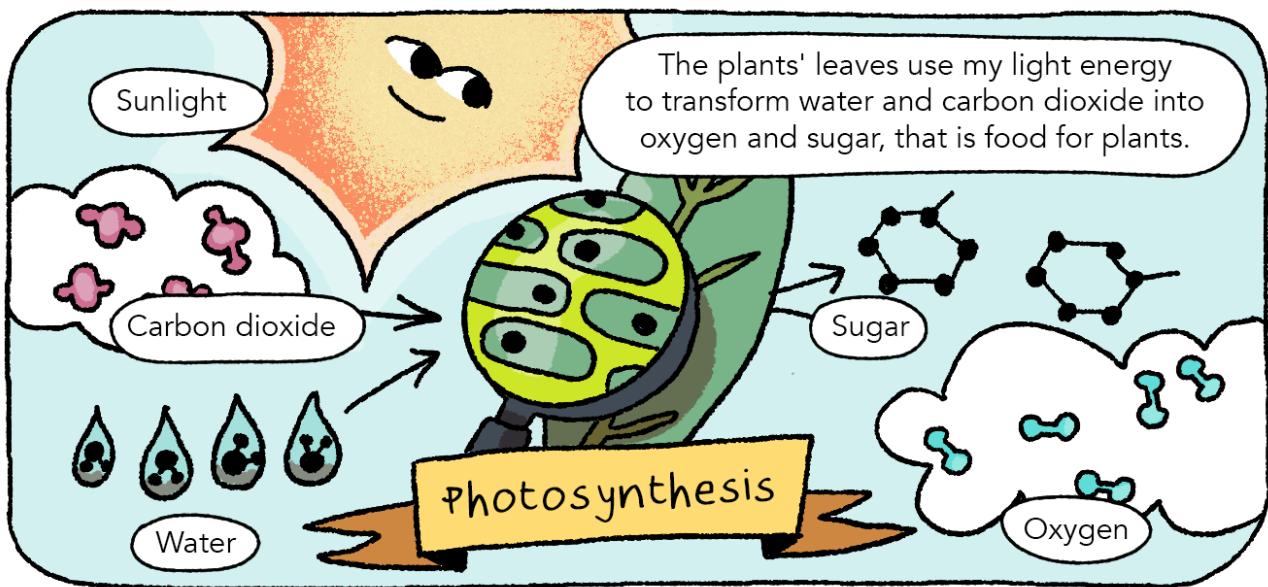
fierce herbivore

nutrients

sunlight

Carbon dioxide

water in the soil



I have an idea!

Since you provide energy to plants, you could give energy to humans. How about that?

Humans need energy right?

Yes! They need more and more energy for all kind of things!

To cook

To power electrical light

To communicate information and talk to other people

To keep warm

To travel

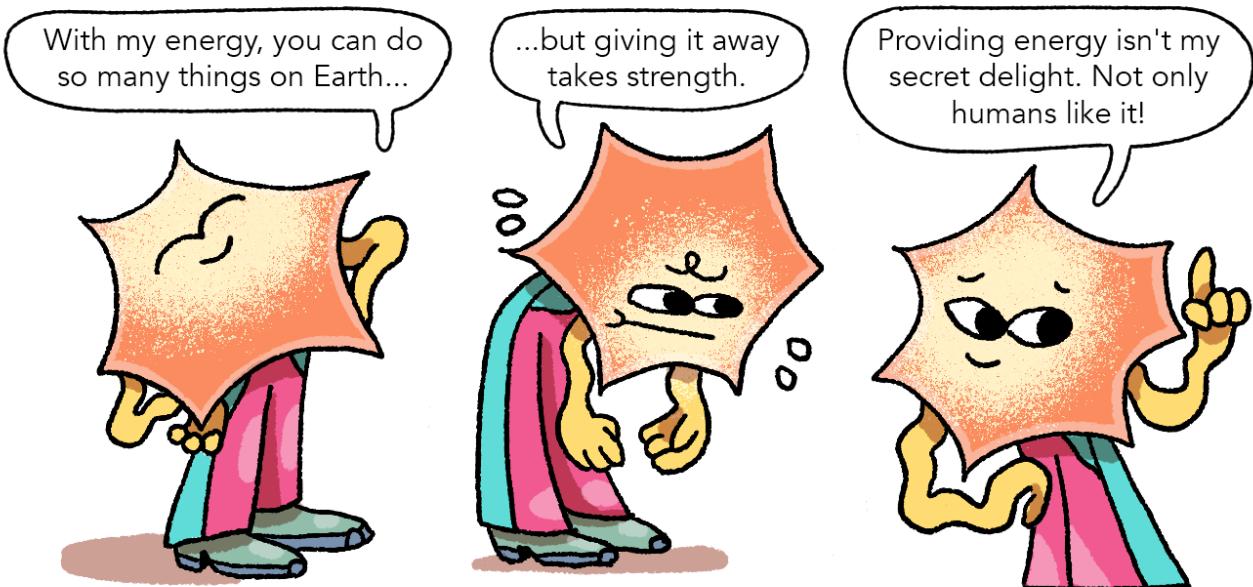
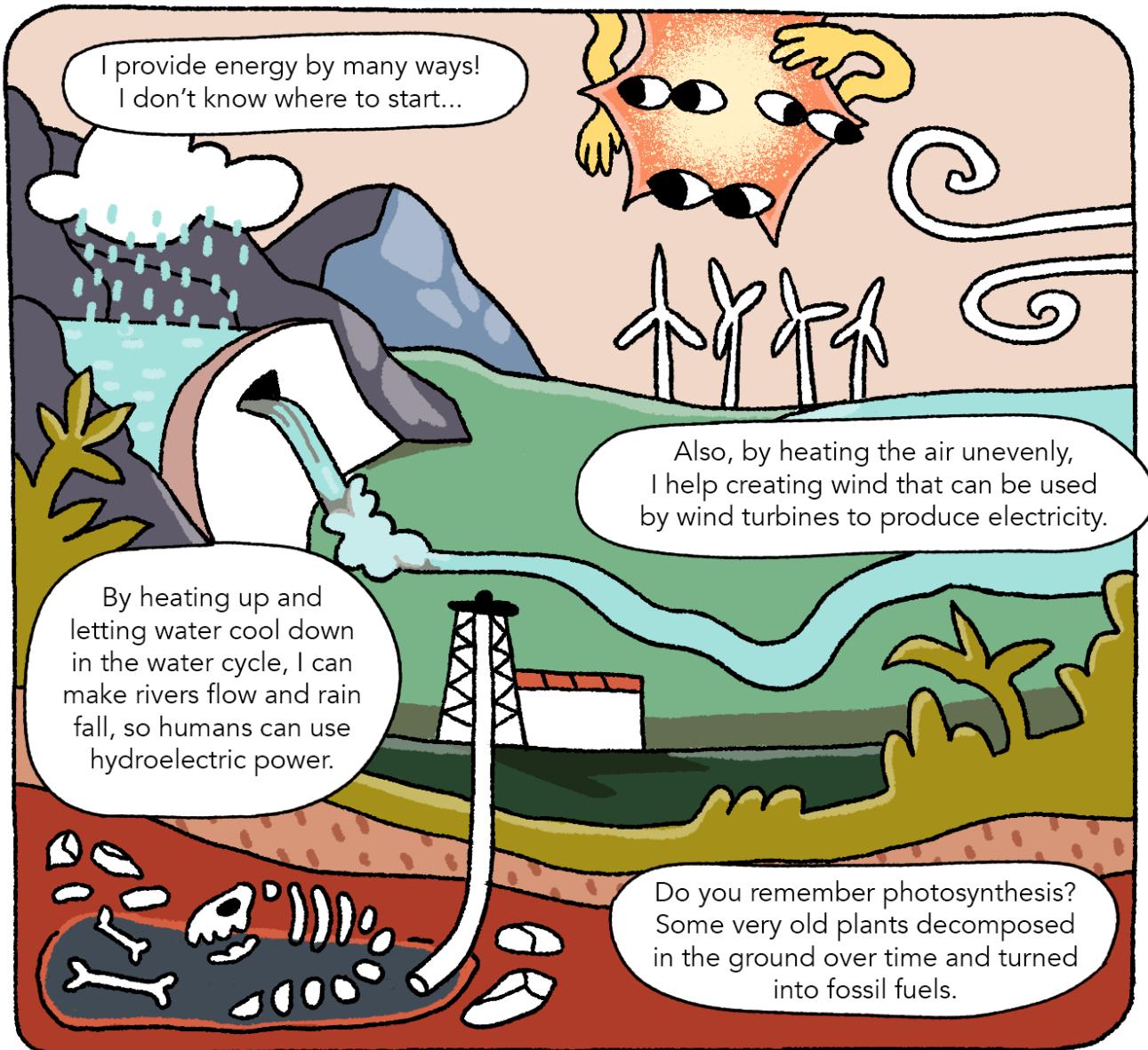
My energy can be directly harvested through solar panels.

Some panels are built so I can heat water in the house! Have a nice hot shower!

Other solar panels absorb my light and set tiny particles - the electrons - in motion. They then flow as electricity through wires and can make lamps light up! Isn't that cool?

How is that possible?

But did you know that most of the energy humans use, I provide indirectly?



Lumi! Plants, ecosystems and humans all benefit from you, but you don't always provide good things.

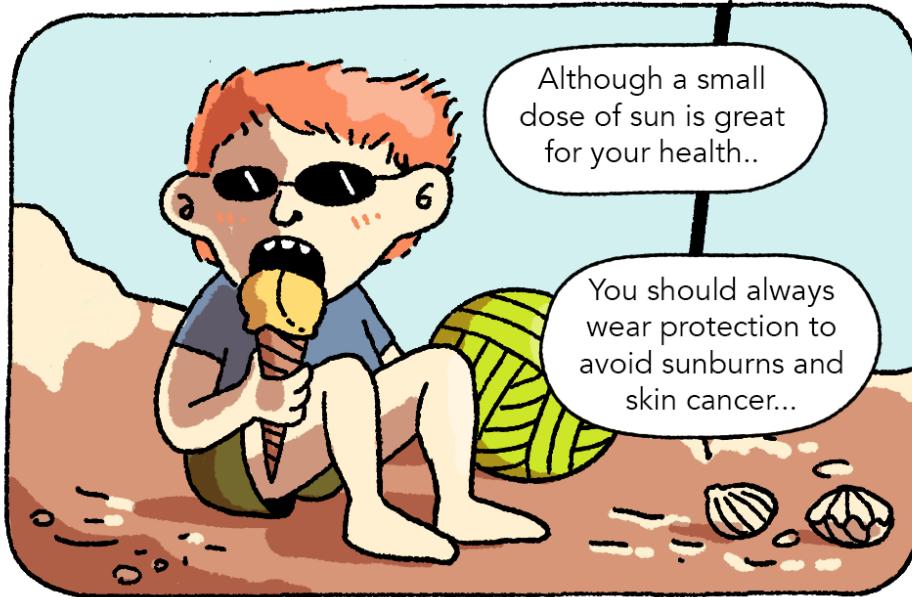
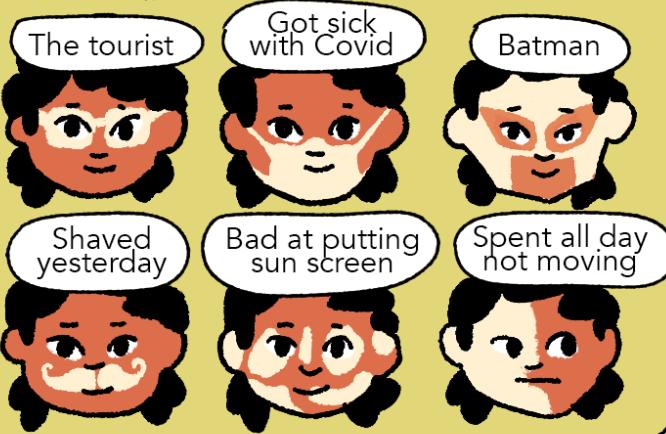
I know you can burn our skin, I hope that's not your delight!

It's true ... if you stay out in the sun too long without protection, it can cause sunburn and harm your skin!



The skin becomes red and painful due to inflammation as it deals with damage.

If you look closely, you can recognise which type of people are behind the sunburn.



What can I use as protection, Lumi?

These are great for protection from the sun rays:



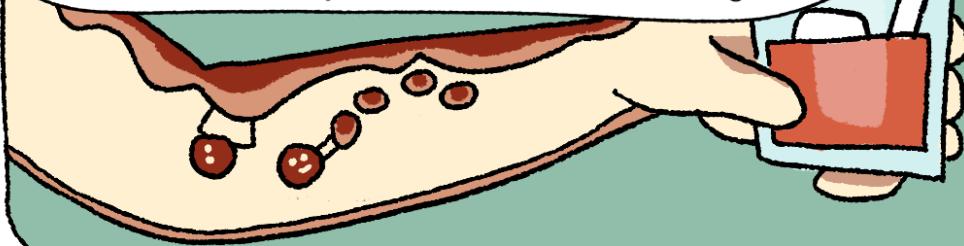
Avoiding being in the sun when it's too intense: 11am-4pm

Partly, your body also naturally protects itself by...tanning.

How does tanning protect us?

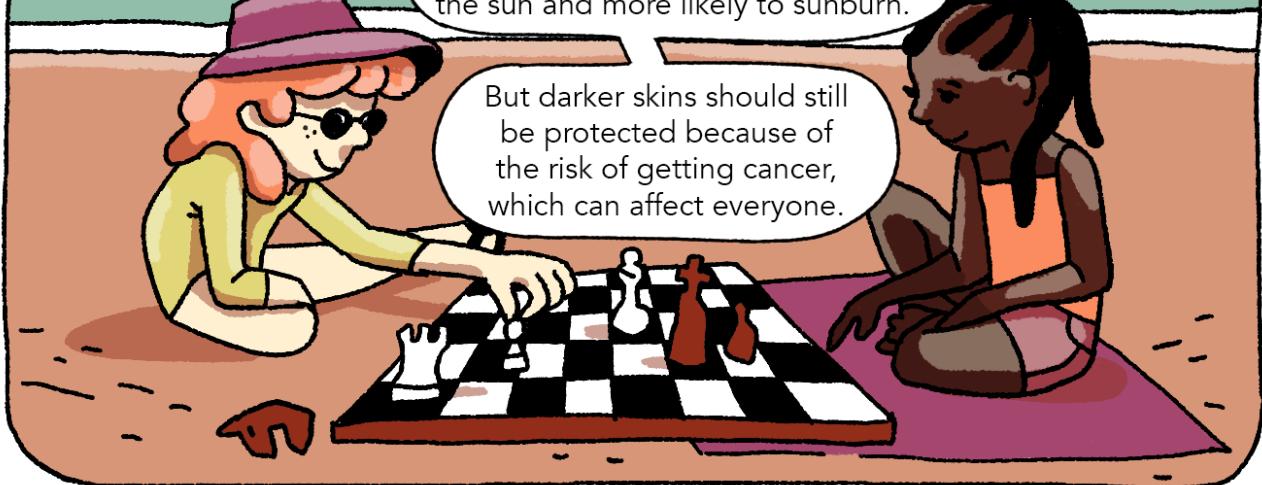
When sunlight touches your skin, special cells start making melanin, a pigment that gives your skin its color. Melanin helps protect your skin by blocking some of the sun's harmful rays.

The more melanin your skin makes, the darker it gets!



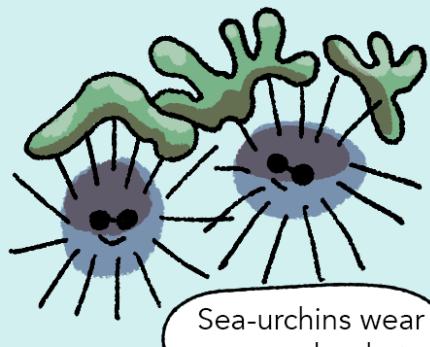
Lighter skins are more exposed to the sun and more likely to sunburn.

But darker skins should still be protected because of the risk of getting cancer, which can affect everyone.



Are the skins of animals also sensitive to the sun, Lumi? I have never seen a dog applying sunscreen...

Yes! And they all have strategies to resist damage from the sun:



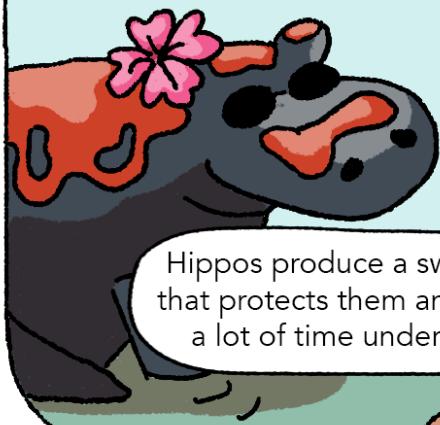
Sea-urchins wear seaweed as hats



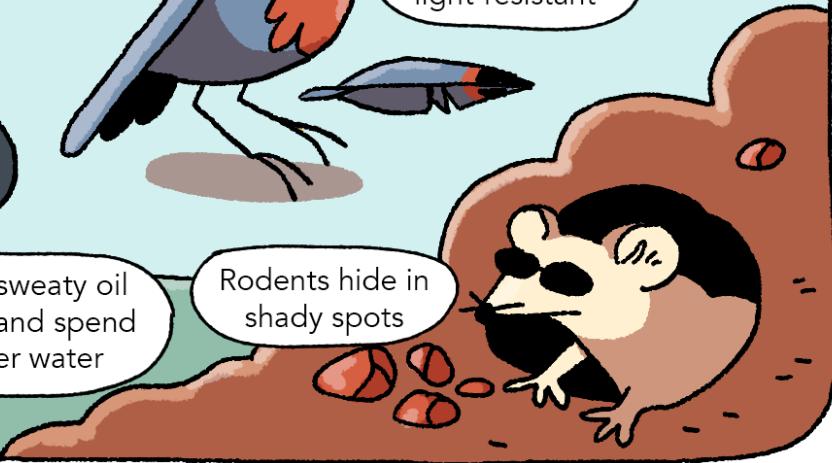
Elephants take mud baths to protect their skin



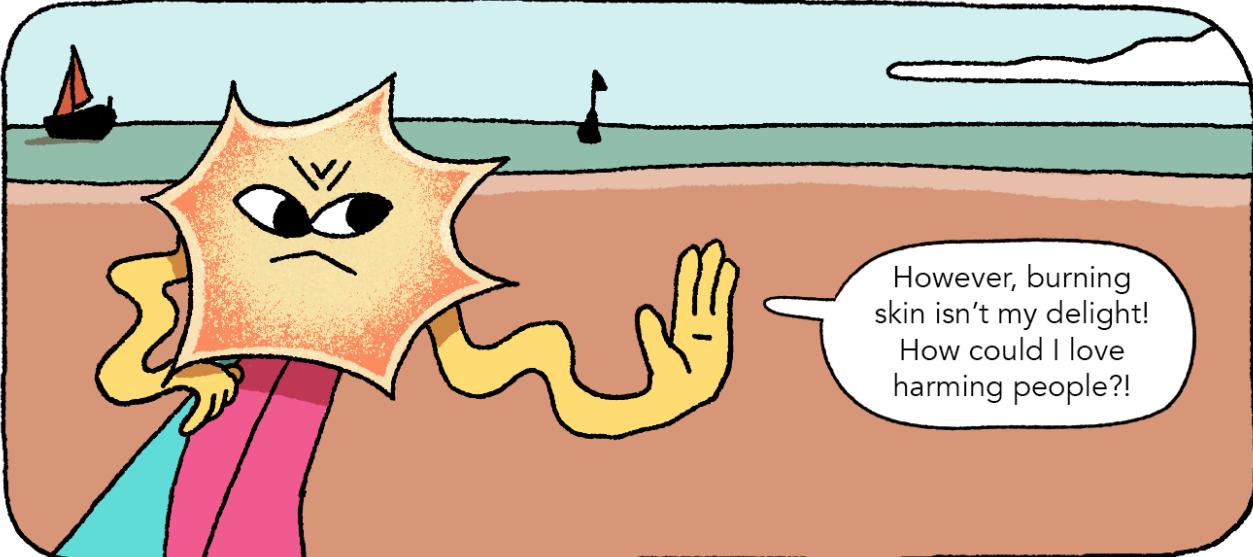
Bird feathers are light-resistant



Hippos produce a sweaty oil that protects them and spend a lot of time under water



Rodents hide in shady spots



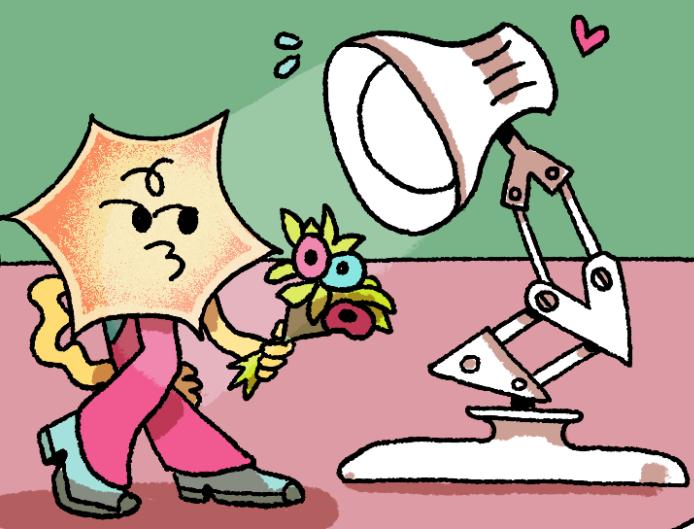
However, burning skin isn't my delight!  
How could I love harming people?!

Ok, Lumi, let's take a step back again. The sun isn't the only thing which can produce light.

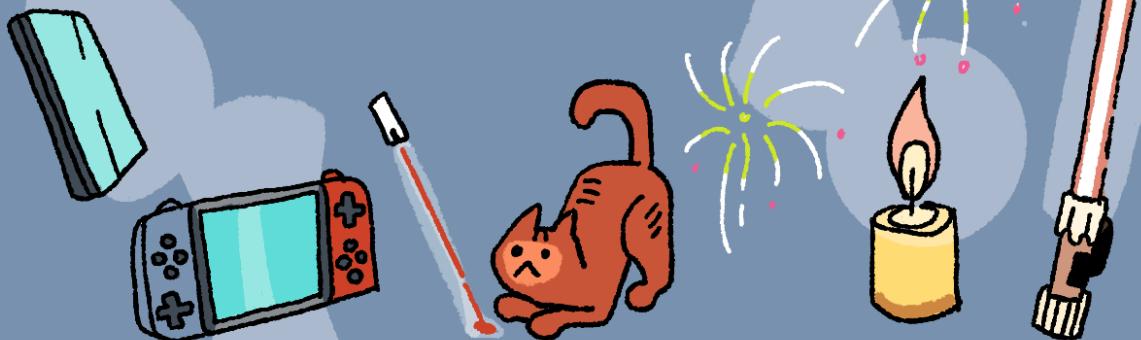
It is true, I have many friends..

Your delight could be to meet some of them...

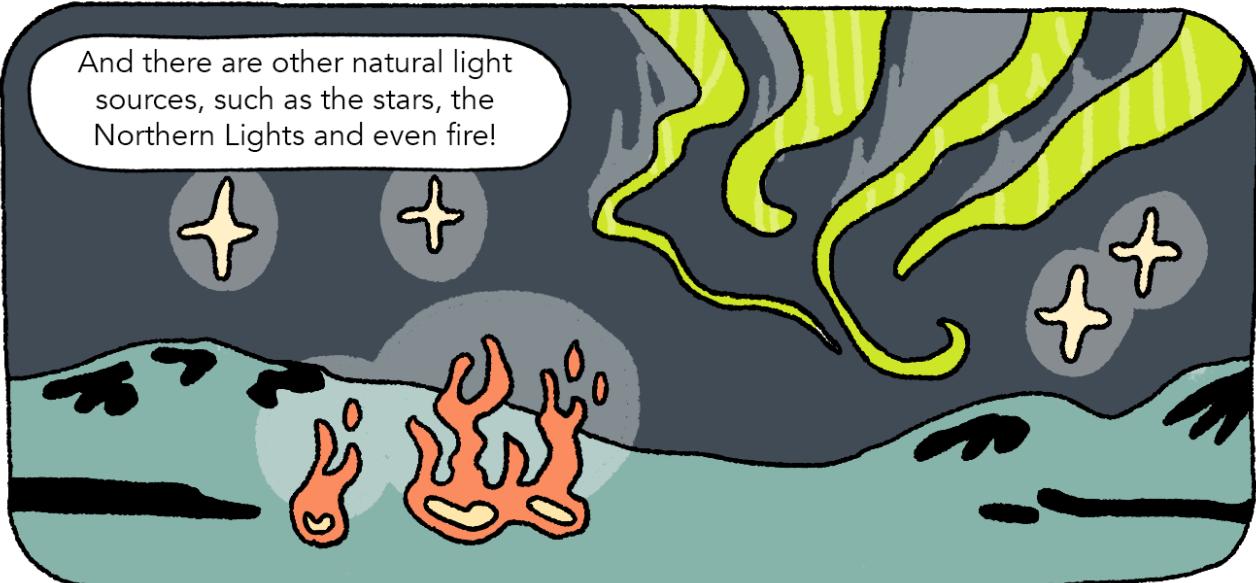
I do like it!

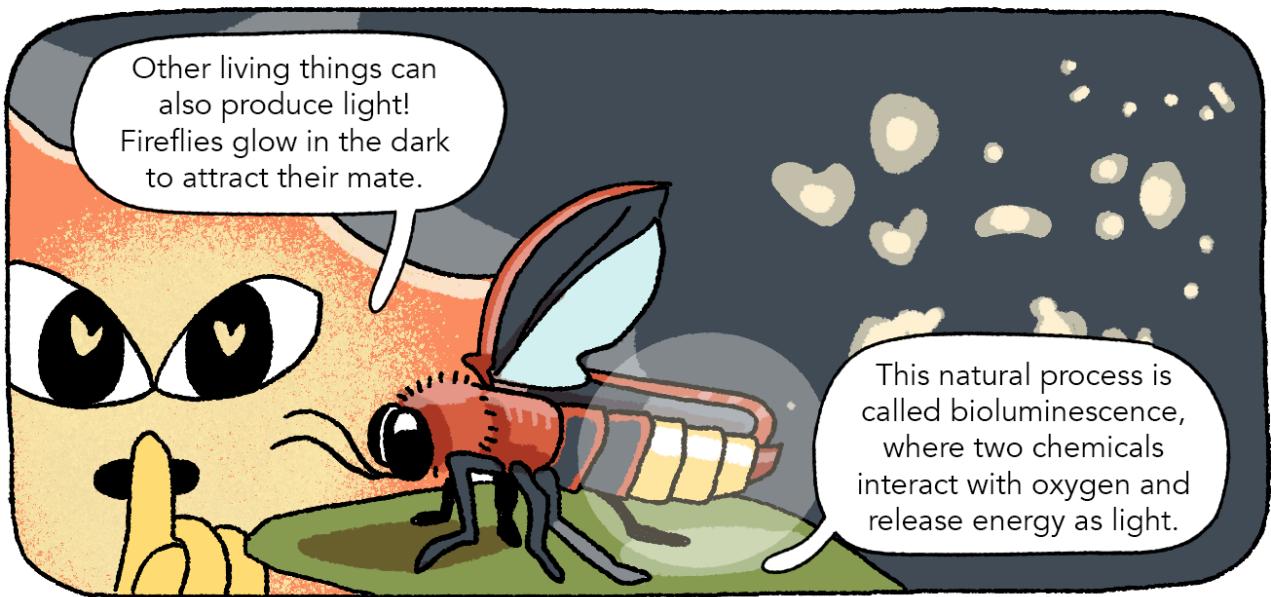


Some light sources are human made, like screens, TVs, computers, smartphones, candles, lightbulbs, lasers and lightsabers.



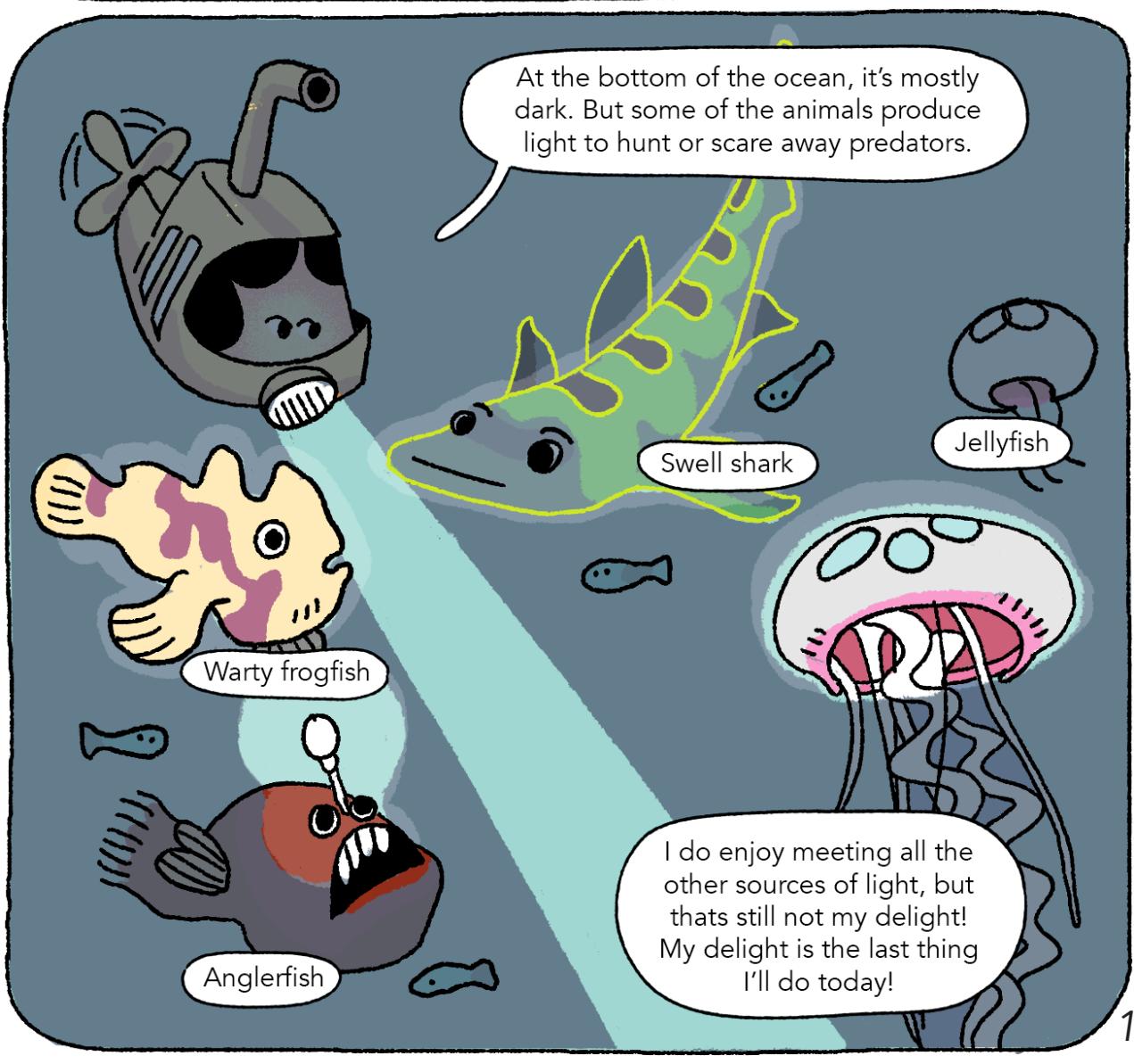
And there are other natural light sources, such as the stars, the Northern Lights and even fire!





Other living things can also produce light!  
Fireflies glow in the dark to attract their mate.

This natural process is called bioluminescence, where two chemicals interact with oxygen and release energy as light.

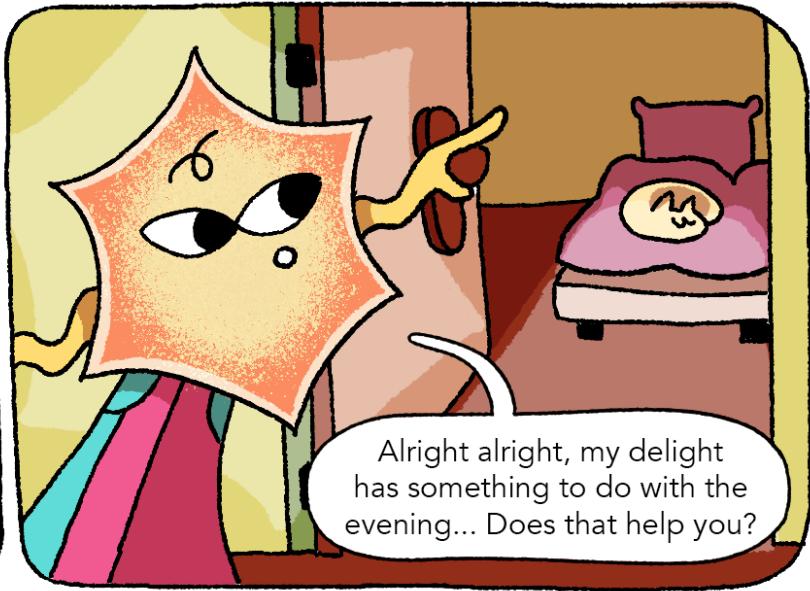


At the bottom of the ocean, it's mostly dark. But some of the animals produce light to hunt or scare away predators.

I do enjoy meeting all the other sources of light, but that's still not my delight!  
My delight is the last thing I'll do today!

Can I have a clue ?

Else I'll never find out  
what your favourite  
moment of the day is...

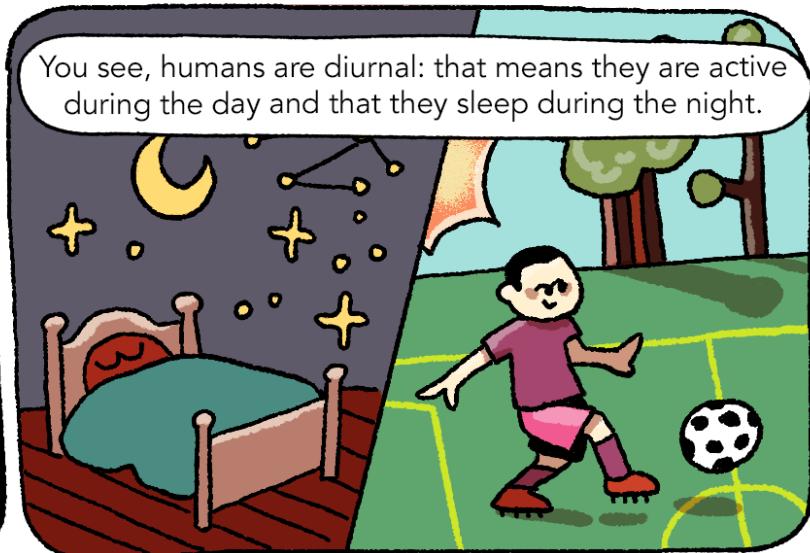


Alright alright, my delight  
has something to do with the  
evening... Does that help you?

Interesting...

Oh! Could your  
delight be related  
to when we sleep  
and wake up?

Good question. I do  
have an influence on it !



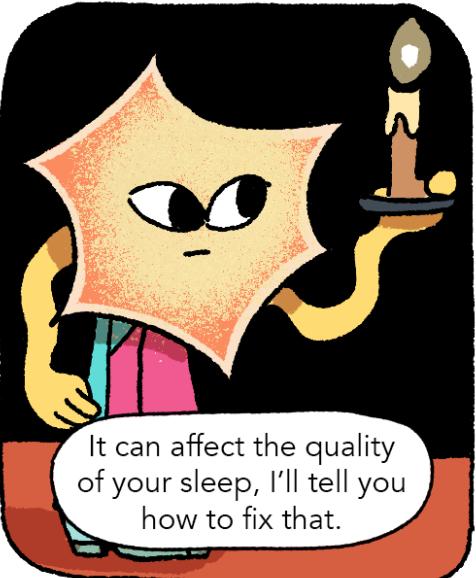
Remember, humans use their eyes to see the world. But light can also help you tell the time—like a clock! When light hits the retina in your eyes, it signals to your brain that it's daytime, so you become more active.

When it gets dark outside, your eyes receive only little light and tell your brain it's nighttime by producing a hormone called melatonin. It's a special type of chemical in your brain. This prepares your body for sleep.

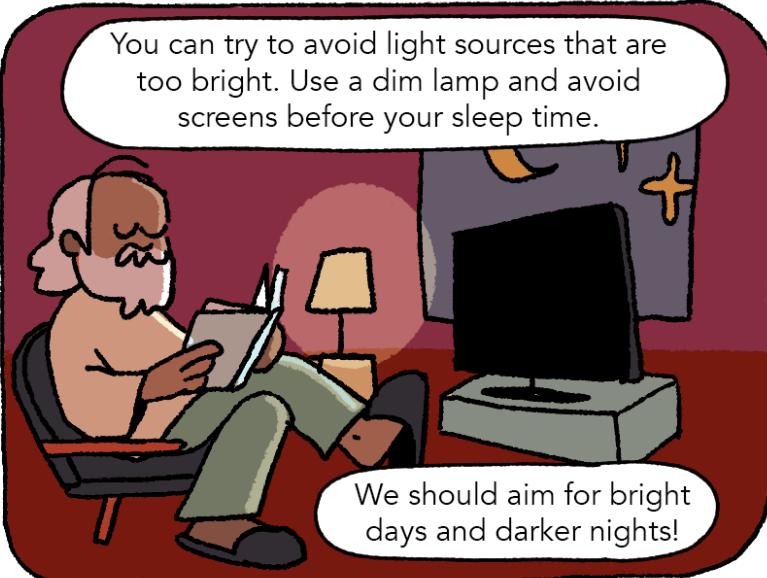
But then, what about the light we have indoors, electrical light? Does it act like sunlight?

Does it keep us awake?

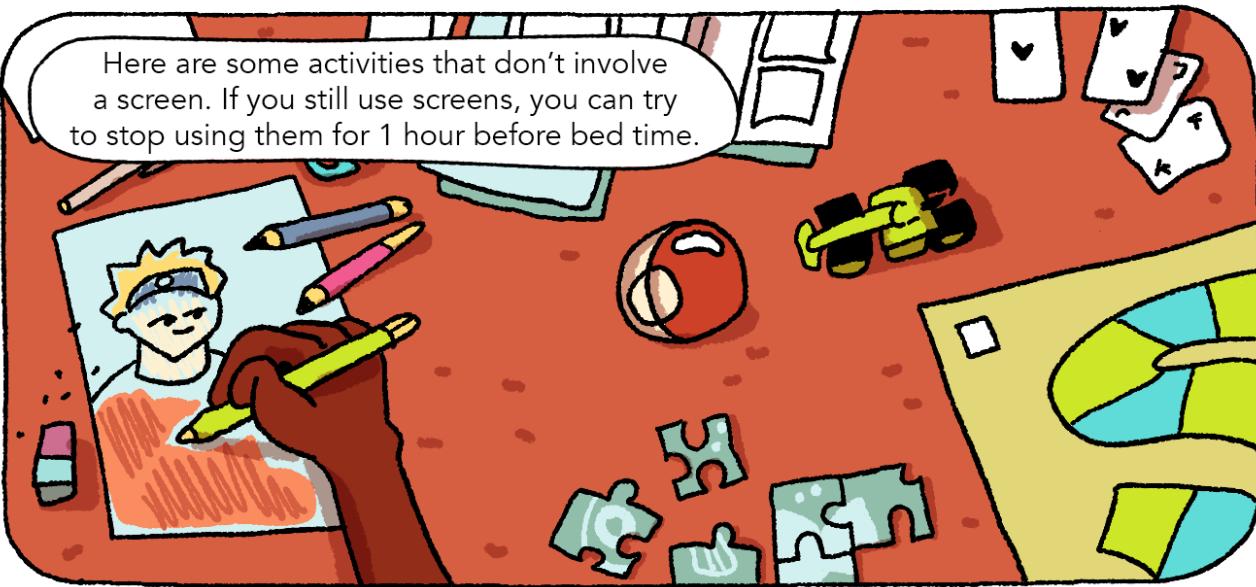
Staying too long in front of a light source during night time can keep you energised in the evening.

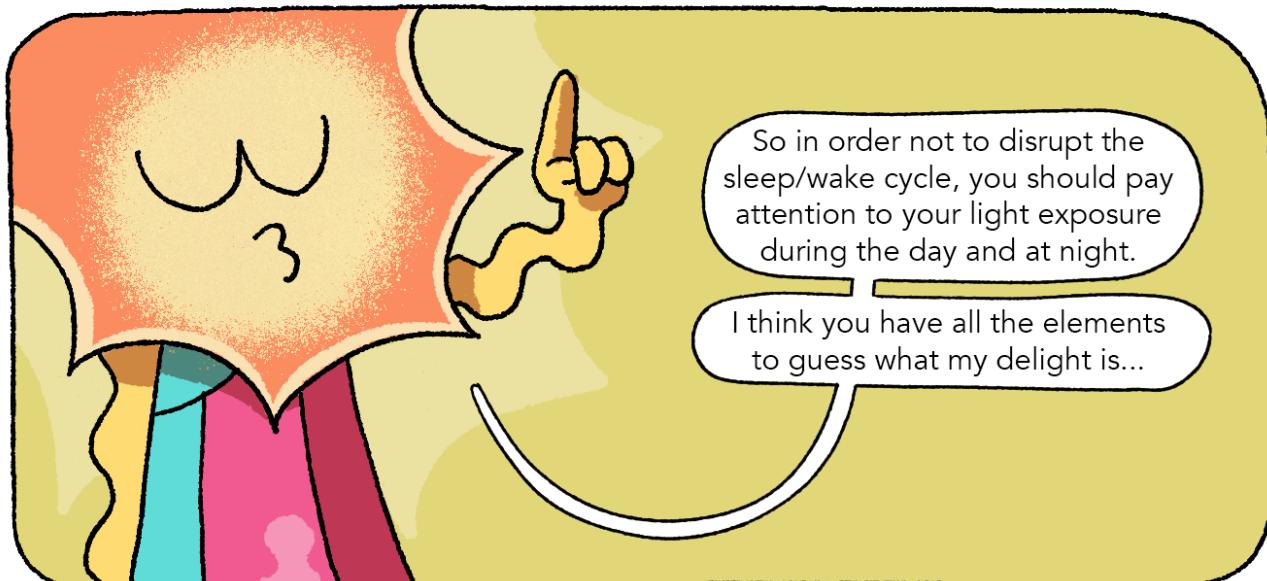
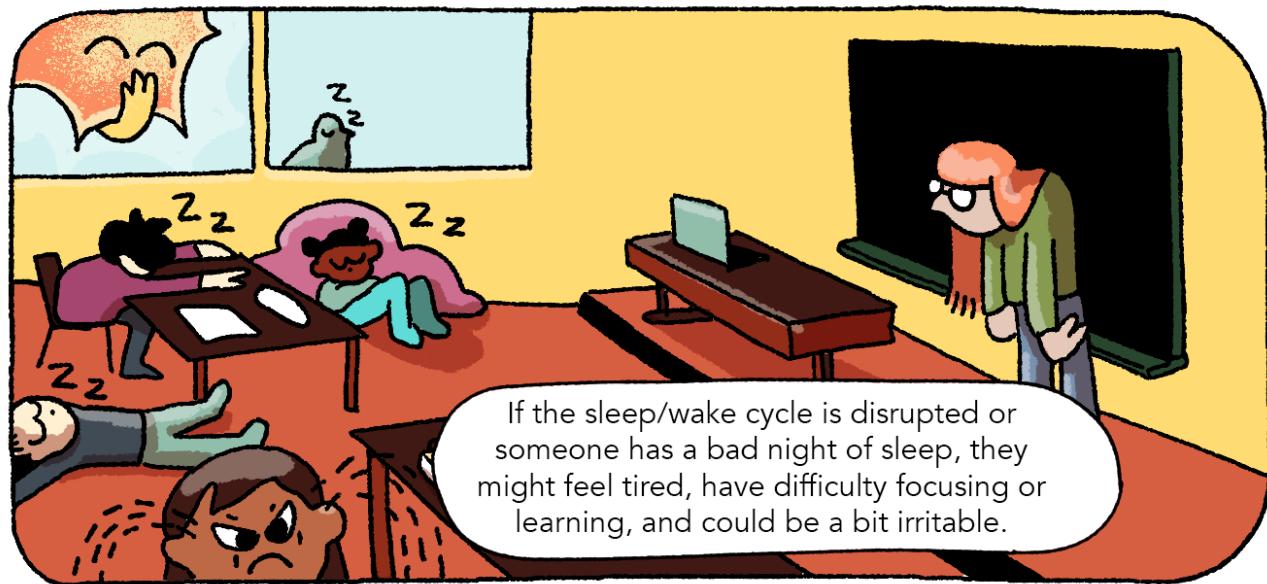


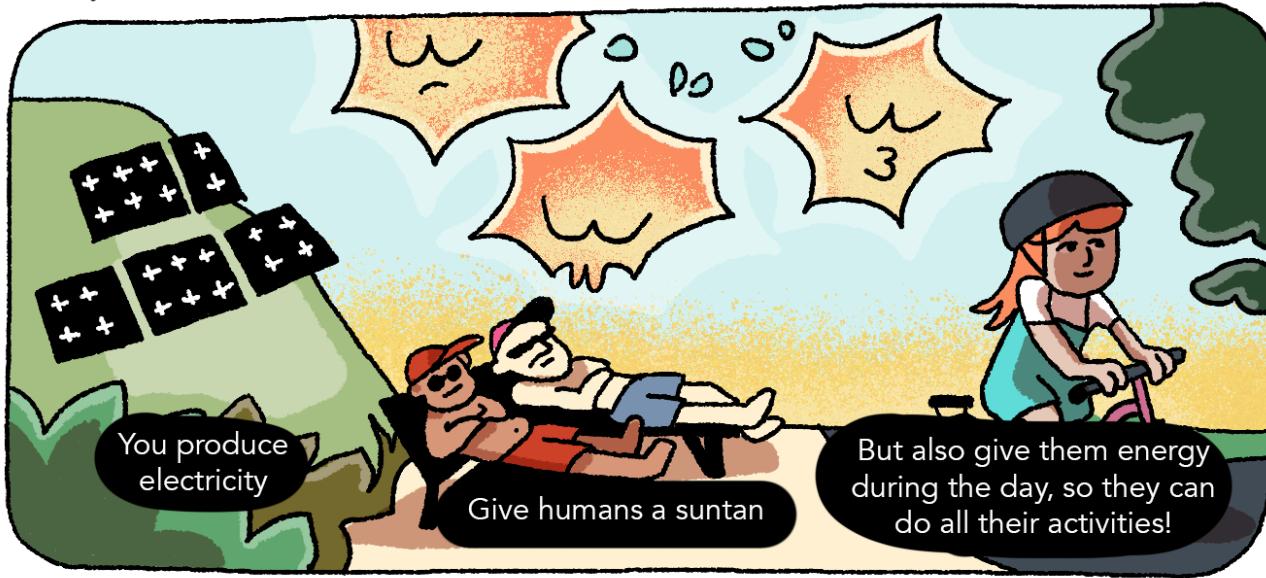
You can try to avoid light sources that are too bright. Use a dim lamp and avoid screens before your sleep time.



Here are some activities that don't involve a screen. If you still use screens, you can try to stop using them for 1 hour before bed time.









Is your delight to create  
the most colorful and  
vibrant sunset before  
the end of the day?



The end  
(of the day)



