Paul stays home

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What´s wrong Paul? Why are you sad?
I miss my friends and going out to the park to play.

I also would like to visit my grandad and my grandma, and I am tired of being in lockdown.

Why does everybody say that we have to wait for the coronavirus to go away?

What is a coronavirus?
Why don’t we look for answers?

Hi teacher! Paul and I would like to understand what is going on and everything about the coronavirus. Could you help us?

Hi!, I think it is important that somebody that knows about this veeery well, explains it to us. Like María my scientist friend! She made a video that explains everything clearly. I will send you the link!

The first thing that Paul’s mom did was to call the school teacher.

The teacher answered:

Hi!, I think it is important that somebody that knows about this veeery well, explains it to us. Like María my scientist friend! She made a video that explains everything clearly. I will send you the link!
Hi!
My name is María and I am a scientist. Many people have asked for information about coronaviruses so I decided to make this short video to answer several questions.

Your teacher is right, it is important to have information from the experts.

Paul’s mom played the video on her phone.
Let’s begin at the beginning

At the end of last year, in Wuhan, a city that is in China, the doctors started to notice several sick people with fever and cough, and some of them had trouble breathing.

You also have a cough??
There were more and more sick people, so the scientists started to search for the cause of the problem.

They found out that the cause of the disease was a coronavirus, that was in the airway of the sick people, for example in their lungs.

**Coronaviruses are a large family of viruses that can infect either people or animals**

And as with every virus, they are very small!

Their name comes from their appearance under the electron microscope, since their shape resembles the solar crown in an eclipse (corona means crown in latin).
We still do not know for sure which animal spread the virus to people.

It is believed that some wild animals, that are not usually in contact with humans, could have spread the coronavirus to people. This could have happened when hunting these animals.

The virus present in one of these animals could have jumped to a person, infecting him or her.

The jumps between viruses that infect animals and humans are called zoonotic events, and are more or less common.

However most of the time the viruses cannot multiply in the infected person, and the problem ends there.
However, sometimes viruses are able to multiply in a person very well. This is what happened in the case of this new coronavirus, that has been named by the scientists as: SARS-CoV-2

Since this virus is new for humans, our defense cells, the leukocytes, still do not know it and so they do not know how to attack it.
Every day our leukocytes patrol our body to destroy any microbe that could make us sick.

But when they do not know the enemy, they need to learn how to fight it. So, they call the general quarters to ask for instructions on how to destroy it. This is what is happening with SARS-CoV-2.
In the meantime, the virus started to spread from person to person in China.

Some infected people traveled to other countries, without knowing that the virus was traveling with them.

Since this happened very fast, soon doctors and hospitals all over the world had to take care of many sick people.

That is why we are asked to stay home. So that we do not catch the virus and all the people that are already infected can be properly cared for in the hospitals.
It is very important to understand how can we catch the SARS-CoV-2 virus.

This coronavirus is not in the air.

It travels in the saliva droplets that are expelled when a sick person coughs or sneezes.

That is why you can catch the virus if somebody sick coughs or sneezes near you.
Those droplets can only reach about 6 feet, which is just about the width of your mom or dad with open arms.

If you imagine that there is an adult with extended arms between a sick person and you, that is enough room so that the droplets with virus cannot reach you.

BUT!!!!!!

The droplets can fall on many things around you.

...like tables, computers, handrails, or phones, where the virus can stay for awhile.

If you touch something that is contaminated with virus...

If you imagine that there is an adult with extended arms between a sick person and you, that is enough room so that the droplets with virus cannot reach you.
...or shake hands with someone who coughed or sneezed on their hands...

...and then you touch your face, you can get infected, because coronaviruses can enter our body through our eyes, nose or mouth.

Ahhh! That is why we are supposed to use a paper tissue to cough or sneeze, and then throw it away in a closed trash can.

And if we do not have a tissue, we can use our elbow to cover our mouth—Like Batman! So that we don’t contaminate (spread the virus to) anyone.
And that’s also why we are told to wash our hands very well!

With lots of soap,

all over our hands,

and very often!

How does this coronavirus cause disease?

The disease caused by this virus is called:

**COVID - 19**

Sick people almost always have fever, cough, headache and they feel very tired.

What most people need to do is to stay home until they feel better.
Children rarely get sick with this virus, but they can transmit it, so that is why they cannot go to school.

Only when sick people get worse do they need to go to a hospital, because they have problems breathing and there they have machines to help them.

The people that might need to go to the hospital if they are sick, are the elderly, like our grandparents.

or those who already have other diseases.

It is them who we need to take care of!
That is why it is very important to stay home! If we do not get close together, the virus cannot travel from person to person and won’t get us sick.

This will also give time for the doctors to take care of the sick people that need them the most, and will make room in the hospitals for those who need to be there.

Nurses and doctors are working very hard to take care of the sick people...

...and together with scientists they are looking for new medicines and vaccines that will help us to fight the coronavirus in the world.
There have been other pandemic events before, but sooner or later they end.

…learn how to defend us against SARS-CoV-2, as they already do against many other viruses and microbes.

We need to be patient so that our leucocytes…

Fear of the unknown is sometimes worse than the harm that the coronaviruses can cause. Now that you saw this video and learned what is happening, you know how to help: Stay home and explain this to your friends so that they also understand, and be patient.
When the video was over, Paul was no longer sad or worried.

Now I get it: If we stay home, it is less likely that we get the virus, and in that way, we can protect others in case we are infected and haven’t noticed!

And I think you will be an excellent scientist Paul!

Why don’t we make a cake to celebrate?

Yeeees!! Just hold on a moment..... I need to tell Luis and Sophy something very important:
STAY HOME!!!
WHO MADE THIS BOOK?

**Susana López**
She works at the Institute of Biotechnology of UNAM in Mexico and studies rotaviruses, which cause gastroenteritis in small children, because she wants to find new ways to protect children against the disease caused by these viruses. She uses microscopes and special equipment. When she is not working she likes to read books or to cook, using regular pots and pans.

**Selene Zárate**
Besides being a mom, this mexican scientist studies how viruses evolve and escape from the immune system and from drugs, and how to prevent this from happening. When she is not working, she takes care of her two naughty little ones and rediscovers with them how the world works.

**Martha Yocupicio**
She tries to understand what is happening when viruses infect our cells, and how the cells fight back. In her free time, she likes to read books of detectives that use their reasoning to resolve interesting mysteries.

**Eva Lobatón**
She has a big colorbox and a computer, that she uses to write and color books and magazines. Besides having fun, she thinks that her drawings can communicate many messages. When she is not working she likes to read books or to cook, using regular pots and pans.

Martha, Selene and Susana have support from the National Strategic Program on Research and Incidence in Virology from CONACyT.
What is and what are the goals of the MEXICAN SOCIETY FOR VIROLOGY?

A group of researchers from a variety of institutions in the country got together with the idea of creating the Mexican Society for Virology (Sociedad Mexicana de Virología-SMV) to promote research and innovation, training of students with high academic standards, technological developments and the communication of virology.

Viruses are the most diverse and most numerous microorganisms on the planet. They can infect all known life-forms and are responsible for many human diseases.

Advancement in the knowledge of their biology and of their role in disease are vital for the development of new and improved vaccines, and for the design of antiviral drugs and better diagnostic tools.

The study of their epidemiology, evolution and ecology is required to further our understanding of their patterns and mechanisms of distribution and dispersion, which can in turn be used to generate new methods for disease prevention and control.

The SMV aims to promote collaborative links between research groups on all aspects of virology, from basic to clinical and epidemiological studies, and to contribute to the efforts of the Mexican health system to respond, effectively and efficiently, to health emergencies of viral origin.

The SMV also aims to communicate to the general public topics on virology that are of interest to all.

Be sure to look for our publications and videos!

https://www.smvirologia.org

https://www.facebook.com/SocMexViro

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Sociedad Mexicana de Virología
Paul is sad because he can’t go out. He can’t see his friends or visit his grandparents. Like everyone else, he has to wait until the coronavirus pandemic is over. What is the coronavirus? How is it spread? How can we take care of ourselves and our families?