

The Science Squad

Youth helping youth to stay healthy

BC Children's Hospital

Illustrations by Daniela Ianorescu
2018



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Canadian Healthy Infant Longitudinal Development Study

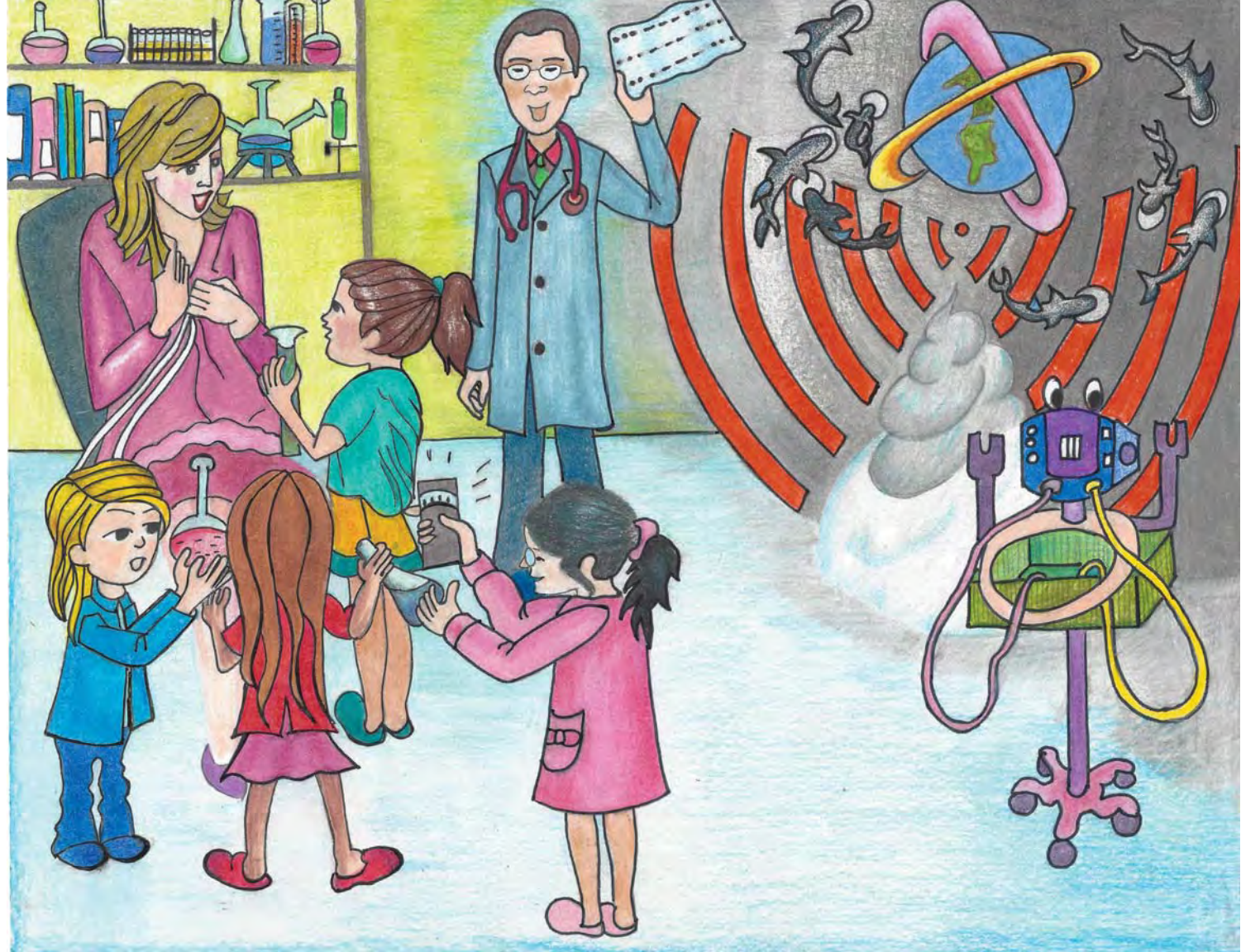
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Beep! Beep! Beep!

A distress signal from a neighbouring planet! The report states that too many children are wheezing and feeling listless. Some bad germs are causing asthma and allergy symptoms. The planet's leaders are reaching out for help from afar.

On Earth, Dr Topsy Turvey is an expert in this matter. He reacts swiftly and calls his team of Junior Scientists along with research nurse, Linda, and research assistant, Lauren, to his lab. "Our study group is a tight community and we have discovered many things together over the years. In fact Jr Scientists, you were tracked since before you were born until now. We can show our neighbours how genes and the environment affect our health. Are you willing to help them? It's up to you."



Dr Topsy Turvey prepares to send up his team into space. In no time, Linda, Lauren and the Jr Scientists teleport to Planet Terra2 located in the same galaxy as Earth. To their dismay, upon their arrival they notice a thick blanket of pollution hanging over the planet. There are no fruit trees, nor fresh produce as one would expect on Earth. Drones and flying cars whiz by. What is most disconcerting, is that mould, dust and bad germs are visible everywhere. The team knows that pollution can cause allergies and asthma symptoms to increase in a young person. This will be a challenge.



Immediately one of the Jr Scientists notices their chemistry equipment is missing. The team needs this equipment to test pee, blood and poop samples from the Terra2 children. To make matters worse, their blood pressure machine, Hug Robot, is missing too. "I feel my blood pressure rising!" Lauren states with an anxious voice. "I'm sure Dr Topsy Turvey will send our supplies right away." she reassures the team.

"Look over there! A floating lab with everything we need." a Jr Scientist remarks. Dr Topsy Turvey, who is always prepared for mishaps, launches his emergency science pod from Earth to the Terra2 lab. FLASH! Hug Robot arrives in the floating lab as special delivery. "That was quick." Lauren responds in amazement.

Linda and Lauren get to work without delay to collect samples from their own team as well as those from the Terra2 children. They need to compare the results of their healthy samples with those of the sick children to draw reliable conclusions.



Everyone is so busy that no one is paying attention when a Terra2 child spots frozen popsicles in the lab fridge. “The Earth team thought of everything!” he shouts and reaches in to grab one quickly. Others gather around him to enjoy a popsicle too. After all, they’ve done a lot of work and they want a treat. Right now.

“Wait! Don’t touch those!” Linda yells out. “It’s not food, they are our *pee samples!* Scientists discovered with urine samples, that plastics can remain in our bodies and may cause allergies and asthma in people.”

“What about marshmallows? Do you have any of those?”



Suddenly, the floating lab trembles. Linda looks out the window and notices a squad of bad germs huddled together outside taking over a small number of good germs. There appears a strange figure among them directing their actions which is causing the turbulence outside.

Again, the lab shakes and rattles, harder this time. Test tubes and paper are strewn everywhere. Despite the chaos around them, Hug Robot smiles.

“What is that boy doing over there?” Linda has just focused her attention on a boy up to mischief in the far corner of the lab. He is playing dangerously close to the tray of test tubes needed for the children’s blood samples.



The boy is unable to resist looking down the deep, deep well of a giant test tube! As the lab shakes again, his toes leave the ground, he tips over the edge and down he falls into the giant tube. "Help! Get me out of here!" His friends laugh and come running to help him. Linda is grateful because she has to focus on taking blood samples right away.

She hands out green lollipops and the magic cream Dr Topsy Turvey has sent with the lab equipment. His team discovered that these items calm the nerves before having an invasive procedure. Hug Robot smiles.

"Will it hurt much?" the Terra2 children ask. "It's up to you." she responds. "It's your belief that will determine your experience." With lollipops in their mouths and Linda holding their hand, most of the children don't feel a thing when the needle touches their skin. Wow!



“Everything seems so topsy turvy where you come from.” remarks a Terra2 child. One of the Jr Scientists was thinking the same thing about Terra2 because there, outside the lab window she sees the strange figure again. The samples they have so carefully collected are being hauled away by him in a space vehicle!

Linda notices this unusual scene at the same time. “We must stop him! He is taking all our pee, blood *and poop samples* with him!” she cries out. “Eeeww, gross! Why does he need to do that?” asks a Terra2 child, clearly disgusted.

CRACKLE...CRACKLE... “Did someone call?” Dr Topsy Turvey asks as his face appears on a large screen. “Those poop samples are important! We discovered four kinds of bacteria in the gut that may solve the mystery behind asthma. We also discovered...” His voice drowns out amid the clatter.

A battle of germs is taking place outside the lab.



Amidst the fog of germs, one can hear an eerie voice call out, "Aren't you *afraid* of me?"

"Nah, we know exactly what you are!" a Jr Scientist exclaims. "Bad germs, multiplied."

There's no time to advise the children of the role good germs have on their health, so Linda acts quickly. She rushes to the back of the lab and gathers all the magic cream tubes she can find. She returns to her team and calls out to them excitedly, "Throw the magic cream at them! Throw as much as you can. This will numb them!"

As you can see, pee, blood *and poop* samples are really important to researchers. They'll do just about anything to keep those samples safe.



Indeed, as the Jr Scientists throw the magic cream at the strange figure and squad of bad germs, they slowly, slowly all become numb.

POOF!

Just like that, the strange figure and his squad disappear. Hug Robot smiles.

“Hurray!” a Jr Scientist shouts. “The people of this planet just practiced the wrong things because they were misinformed.” With the new information gained from Dr Topsy Turvey’s study, the good germs can begin their work to replenish Terra2 with their delightful presence. Many cheers can be heard across the planet.



Linda gives Hug Robot a big hug and smiles. She is relieved the task is over and calls Dr Topsy Turvey to tell him the good news. "We did it! We shared our knowledge and assisted the leaders and the people of Terra2 to live in harmony with the good germs. We will send them more dogs to naturally boost their immune systems. We'll also help them plant fruit trees and other kinds of trees to help control pollution."

Believing in the mission and working together makes anything possible.



“Thank you Science Squad! We are stronger together.” Dr Topsy Turvey announces. He is very pleased that his research team put things right side up on Terra2.

The Jr Scientists were enthusiastic that the research was necessary not only for them but for others. When they asked the researchers if they could keep searching for new discoveries with them in the future, the response was, “Well, we can’t do it without you Jr Scientists. It’s up to you.”



For more information on CHILD study at BC Children's Hospital, please visit: www.childstudy.ca