



The Adventures of
Greco & Beco

The School in the Glass City

Written by Gwen Lee

Illustrated by Brandon Chng

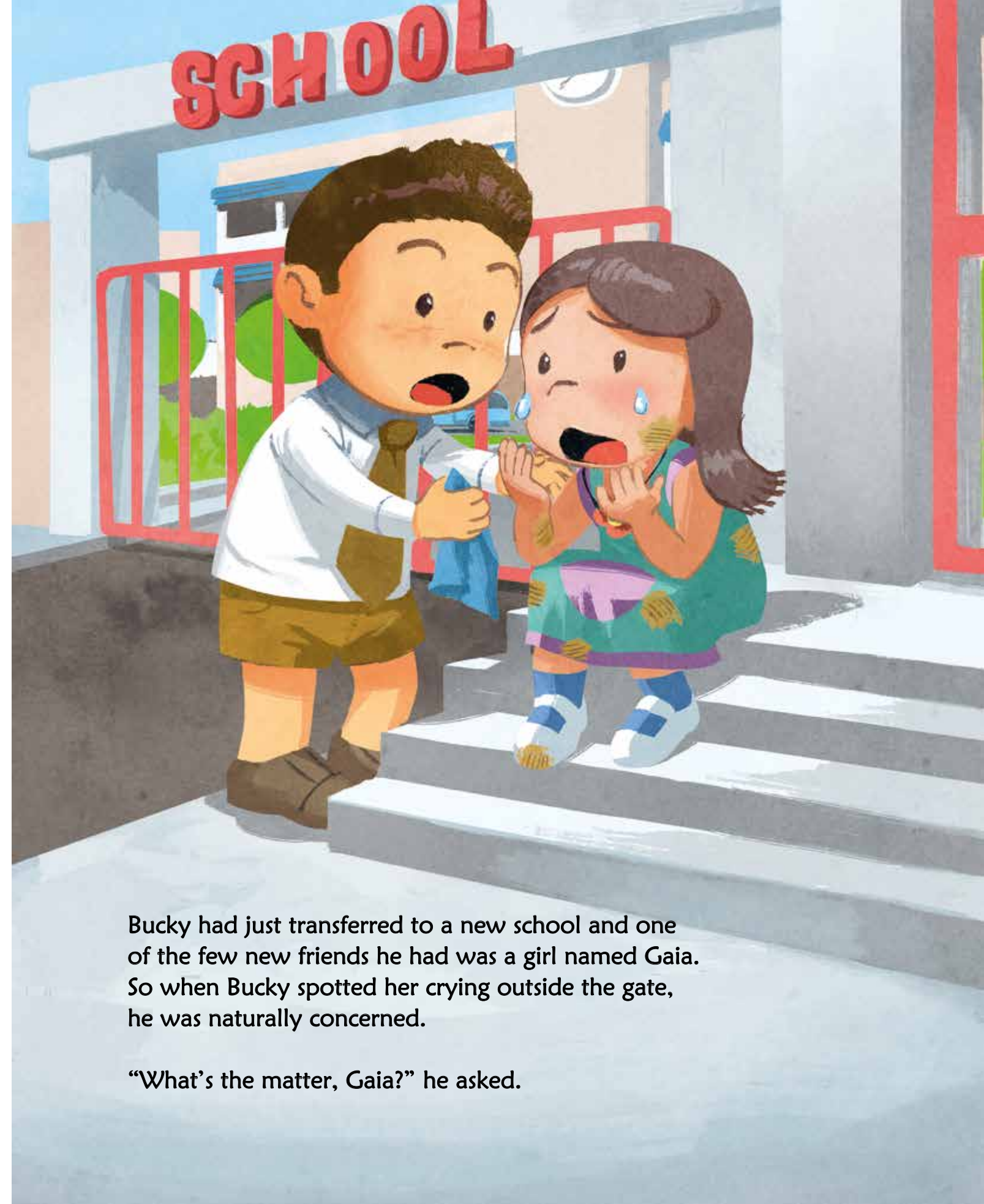
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Bucky had just transferred to a new school and one of the few new friends he had was a girl named Gaia. So when Bucky spotted her crying outside the gate, he was naturally concerned.

“What’s the matter, Gaia?” he asked.

“Alex was messing up my eco-garden,” Gaia replied.
“When I tried to stop him, he pelted me with mud.”

“Oh dear,” Bucky said. “Come, I’ll help you clean up.”


“Clean up?” quipped a familiar voice behind them.
“That’s exactly what we need.”

Bucky spun around. He let out a whoop
when he saw his dear friends Greco and Beco,
back from their round-the-world trip.
But what a state they were in!



“Let’s head over to the garden shed,” Gaia offered.
“We’ll fix you up in no time.”

The group got to work, cleaning and mending.
Bucky was almost done weeding Greco’s roof
when they heard a loud boom.



The friends rushed out and saw the concourse strewn with rubbish. Alex the bully had the lights and fans on, and was shooting targets with a garden hose.

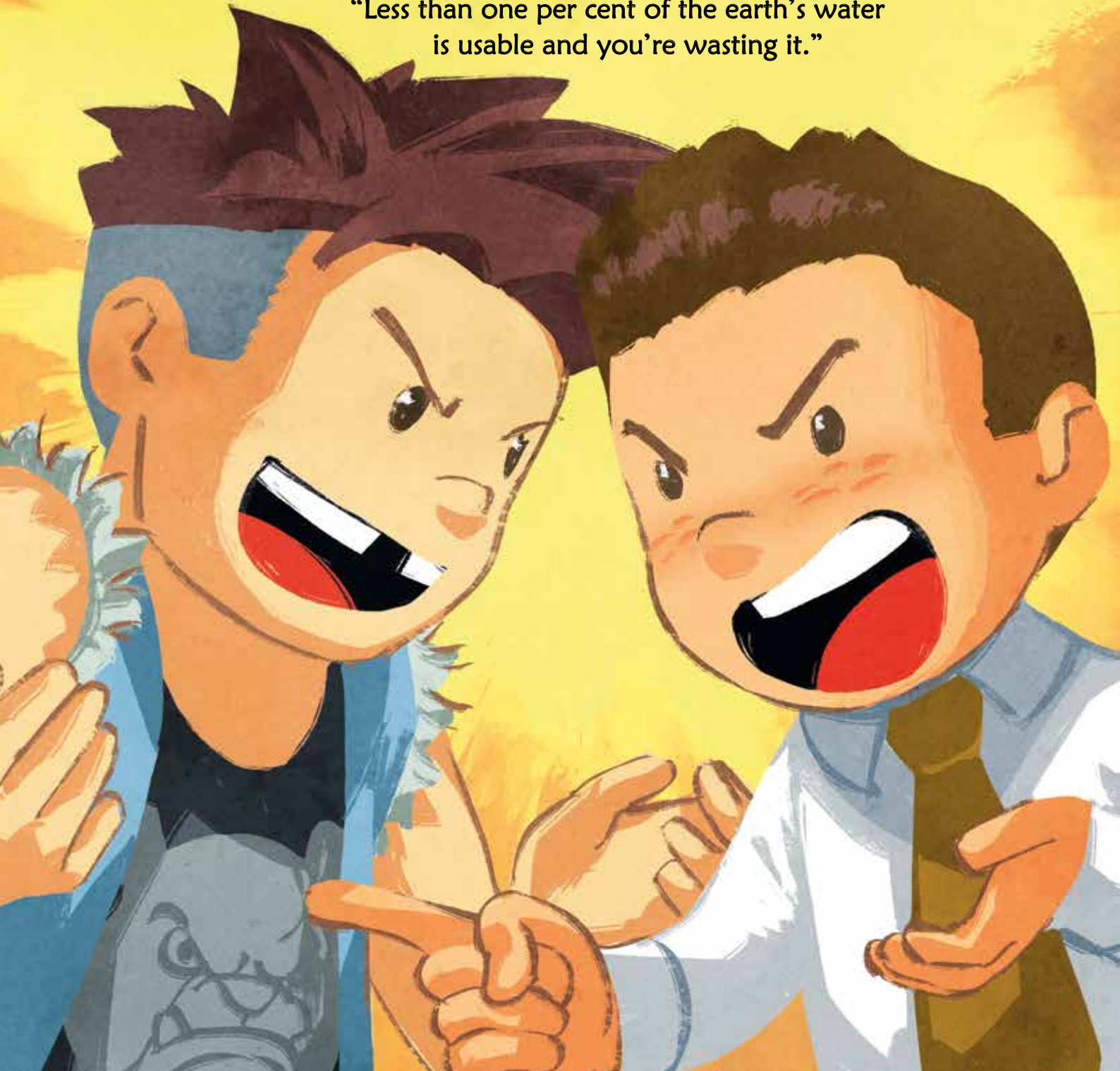
“What a waste of water and electricity!” Greco exclaimed.

Alex looked up angrily and turned his hose on Greco. Bucky ran up to stop him, but was sent crashing into a pile of plastic bottles.

“I’m going to get the teachers!” Gaia cried.

“I’m not doing anything wrong, you tree-huggers,” Alex said with a smirk. “Singapore’s surrounded by the sea. There’s plenty of water to go around!”

“That’s salt water. We can’t drink it or use it,” Bucky corrected. “Less than one per cent of the earth’s water is usable and you’re wasting it.”

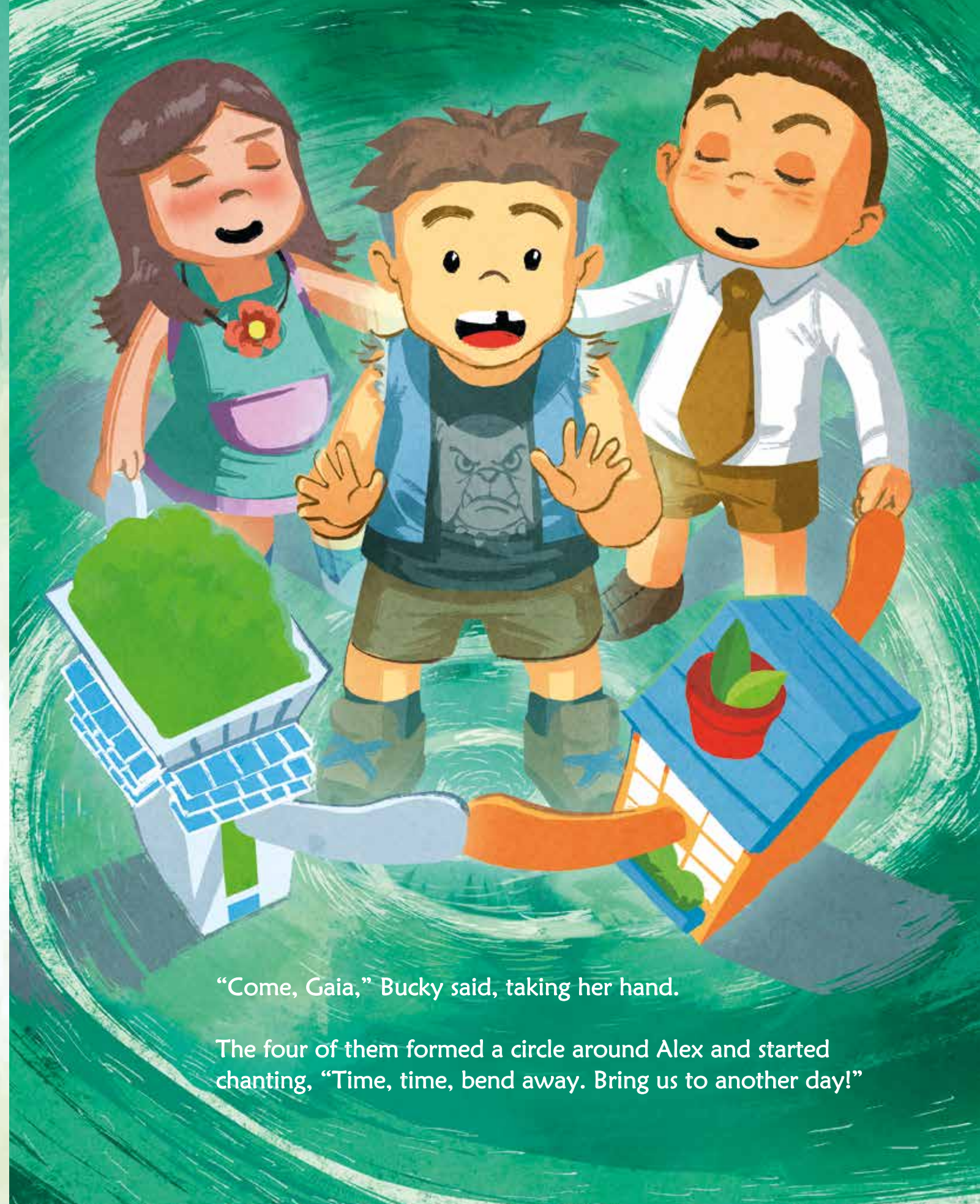


“You don’t need the lights on when it’s bright,” Greco said, wiping her face. “The more electricity we use, the more fossil fuels we’re burning.”

Alex shrugged. “So what? We’re never going to run out.”

“Fossil fuels such as coal and gas are limited in supply,” Beco said, switching off the lights. “Besides, the more we burn, the more heat-trapping gases we’re adding to the atmosphere. And that’s what is causing the earth to heat up.”

“Global warming doesn’t affect me,” Alex said with a yawn. “Just get out of my way, okay?”



“Come, Gaia,” Bucky said, taking her hand.

The four of them formed a circle around Alex and started chanting, “Time, time, bend away. Bring us to another day!”



There was a blinding flash of emerald light. When they opened their eyes, they found themselves in the middle of a busy canteen surrounded by students.

“Welcome to the year 2047,” Beco announced.

“Wow!” Alex pointed to the wall. “Are air-conditioned canteens the norm in the future?”



As they walked down the corridors, they realised the entire school was air-conditioned. Despite that, ceiling fans were left spinning at top speed in the empty but brightly lit classrooms.



“Excuse me,” Gaia said to a student passing by. “Could we turn up the temperature to 24°C? It’s too cold.”

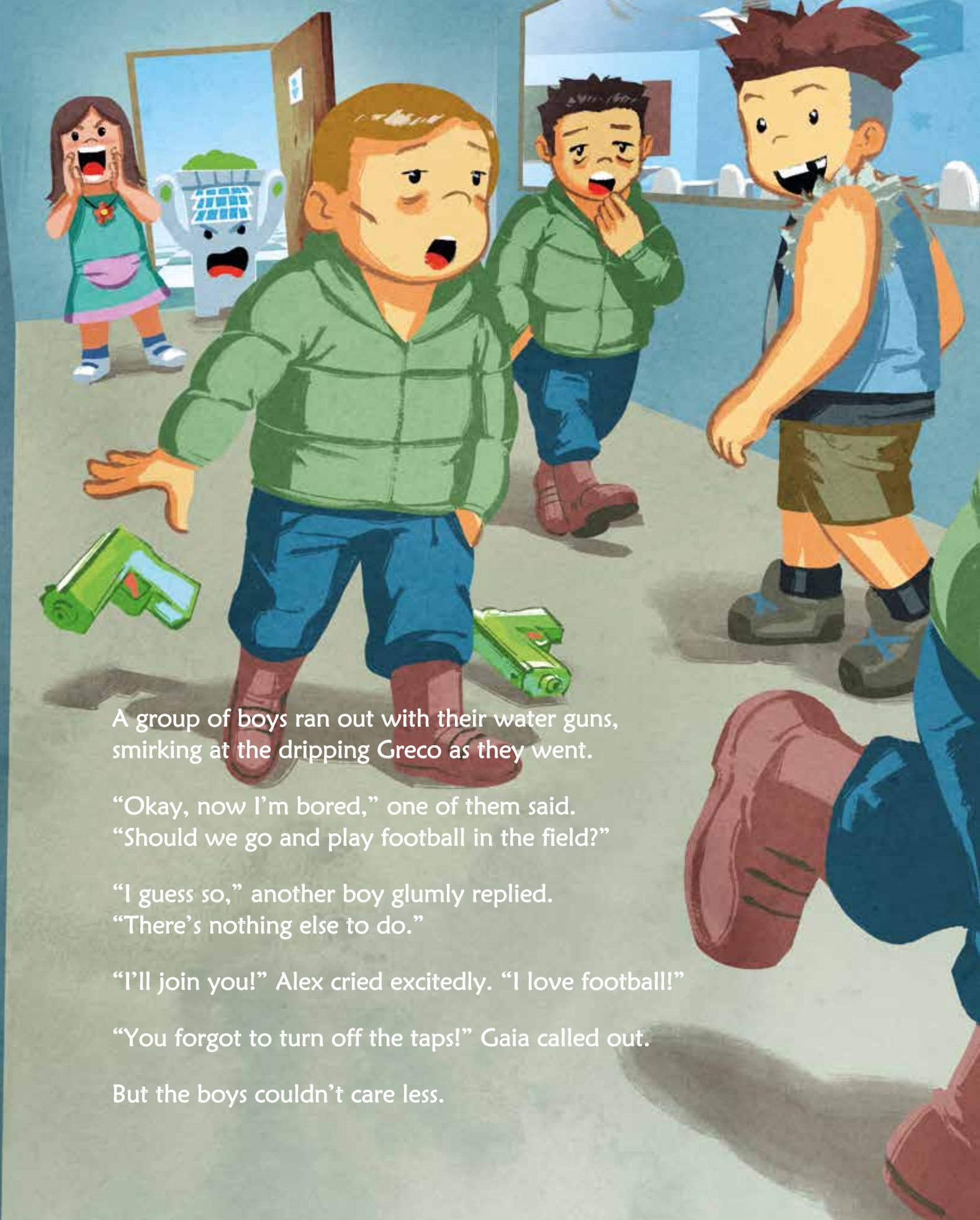
“You’ll be fine with a sweater,” he replied with a dismissive wave.

“I told you,” Alex taunted. “Nobody cares.”



Just then, they heard excited shouts coming from the restroom. Greco opened the door and immediately, a spray of water hit her square on her solar panels.

“Not again,” Greco groaned.



A group of boys ran out with their water guns, smirking at the dripping Greco as they went.

“Okay, now I’m bored,” one of them said. “Should we go and play football in the field?”

“I guess so,” another boy glumly replied. “There’s nothing else to do.”

“I’ll join you!” Alex cried excitedly. “I love football!”

“You forgot to turn off the taps!” Gaia called out.

But the boys couldn’t care less.

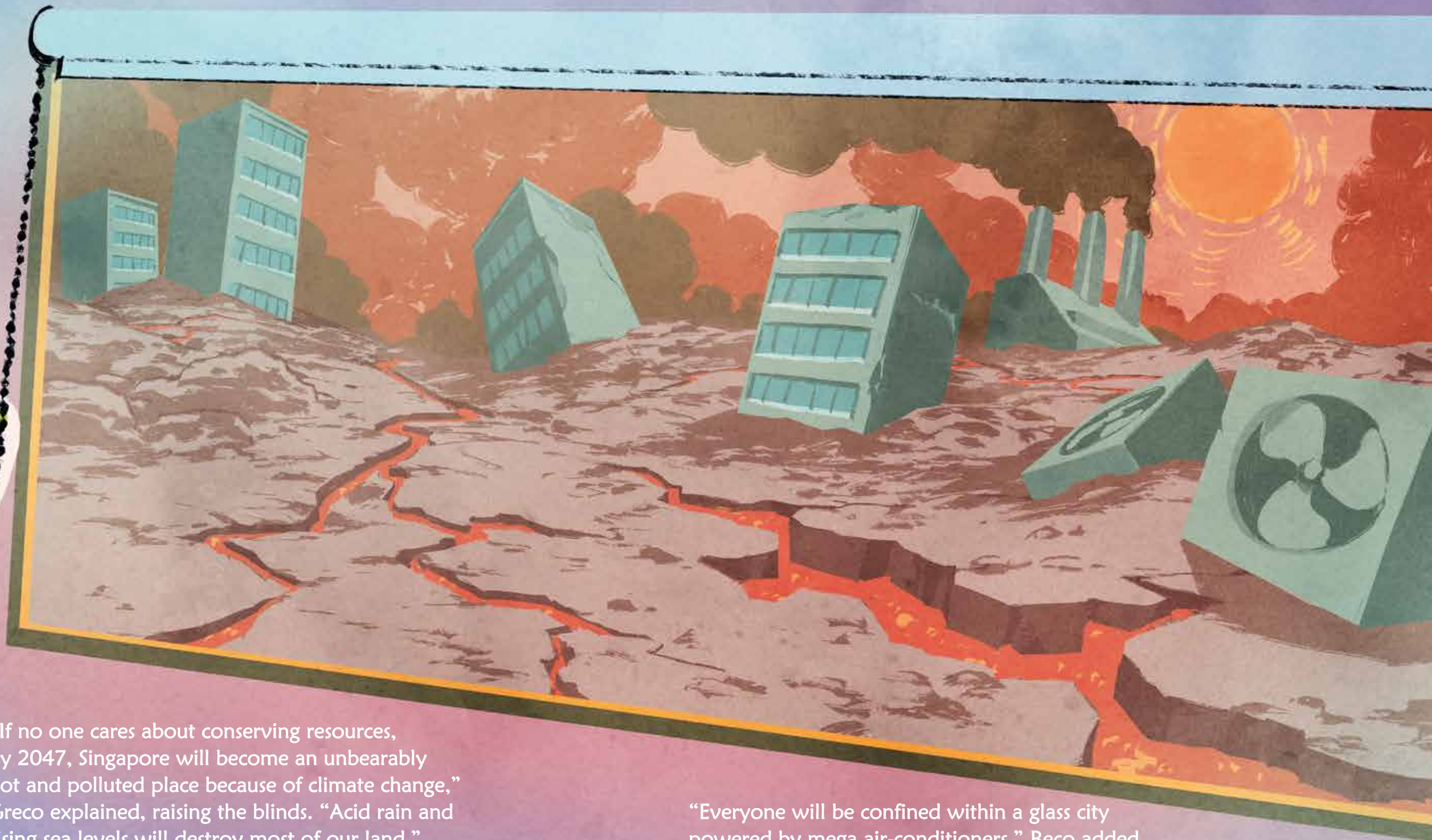


When they reached the 'field', the friends were stunned to find an enclosed space.

"Where's the grass?" Alex exclaimed.
"Aren't we going outside?"

The boys stared at him like he was crazy.

"Nobody can survive out there," someone said.
"Besides, grass is extinct."



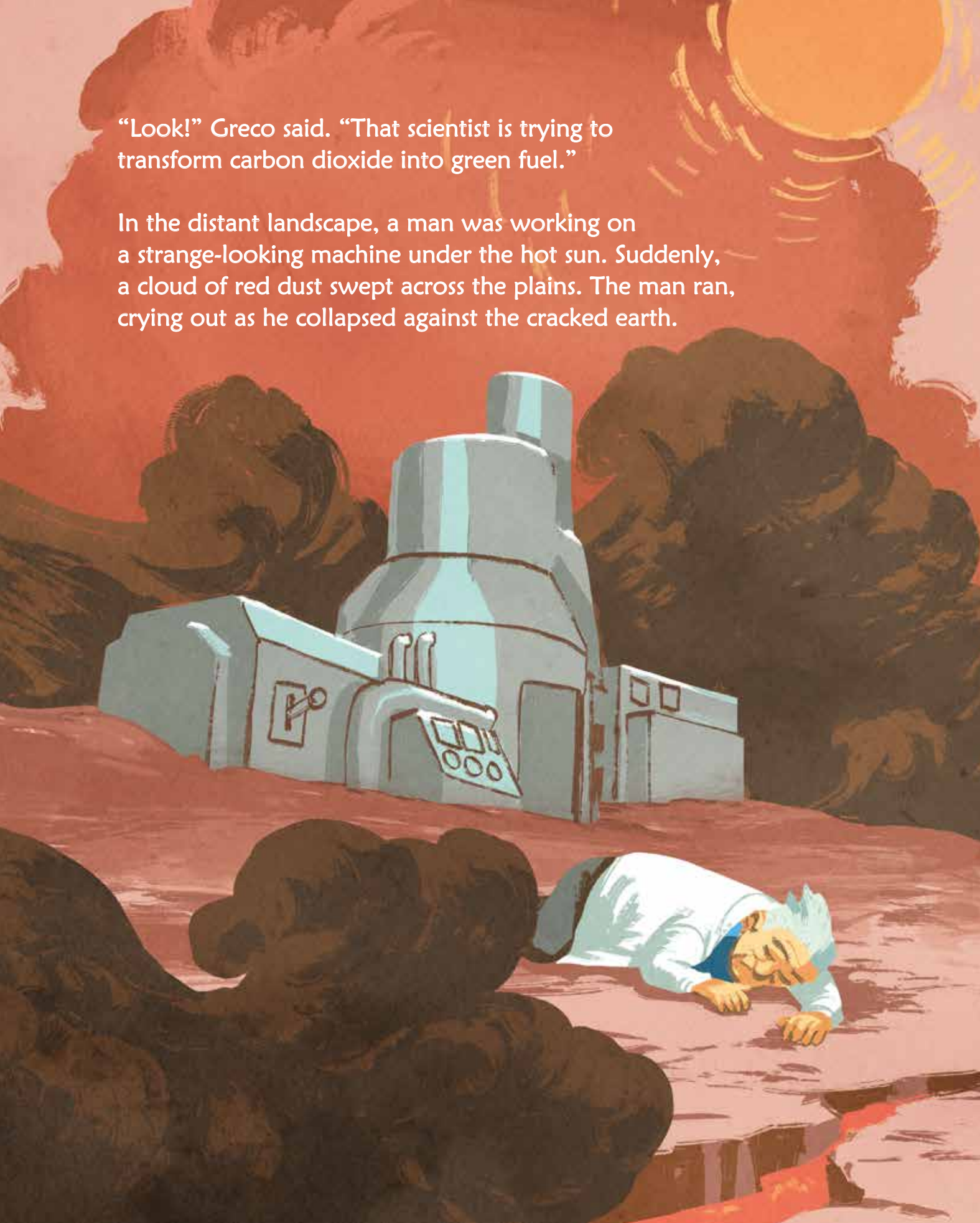
“If no one cares about conserving resources, by 2047, Singapore will become an unbearably hot and polluted place because of climate change,” Greco explained, raising the blinds. “Acid rain and rising sea levels will destroy most of our land.”

Alex, Bucky and Gaia stared out in horror at the barren landscape.

“Everyone will be confined within a glass city powered by mega air-conditioners,” Beco added. “While it may be cool inside, these energy-guzzling machines release carbon dioxide, which heats up the outdoors.”

“Look!” Greco said. “That scientist is trying to transform carbon dioxide into green fuel.”

In the distant landscape, a man was working on a strange-looking machine under the hot sun. Suddenly, a cloud of red dust swept across the plains. The man ran, crying out as he collapsed against the cracked earth.



“Help! That’s my Dad!” Alex shouted when he saw the man’s face. In his panic, Alex grabbed a chair and threw it at the window.



Suddenly, there was a flash of emerald light. When it faded, the five of them found themselves back in the present day. Tears welled up in Alex's eyes. He had no idea that his wasteful habits went against his father's work.

"Do my actions really affect the planet?" he asked.

"Everyone has a part to play," Greco said.

Alex nodded. Some of his favourite things in the world included kite-flying and having a barbecue at the beach with his family. The thought of giving these up was sobering.

“It’s never too late to change the future,” Bucky said.
“I’m recruiting members for my Super Duper
Green Building Club. Would you all like to join me?”

“Of course!” everyone cheered in unison.

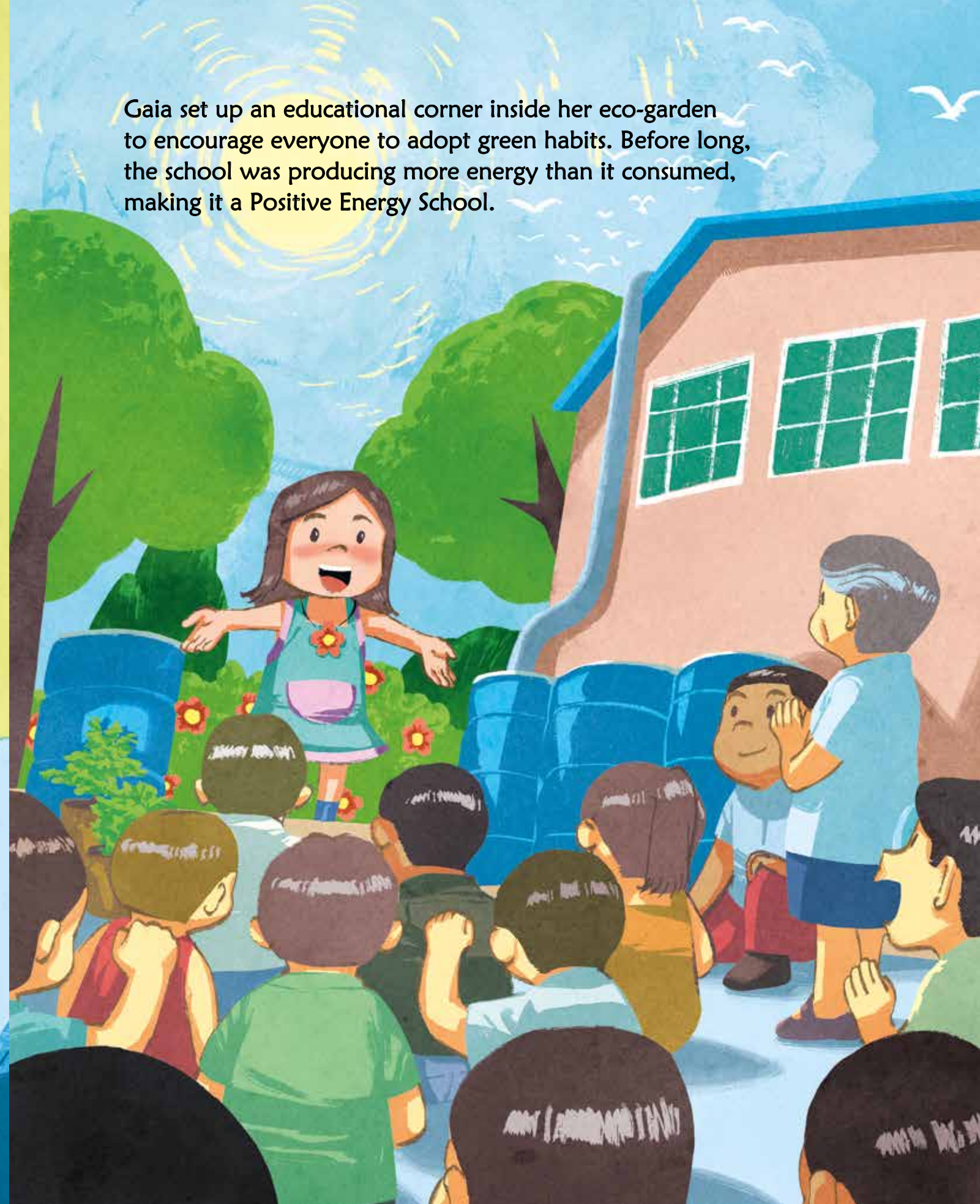


Inspired by their time travel, the friends began recruiting their fellow students to retrofit the school with green features. Together, they installed rooftop solar cells to generate electricity for the lights and fans in the classrooms. New windows were also put in to allow natural wind to cool the school.

In the restrooms, they installed dual-flush buttons on the toilets and water-saving thimbles to the taps.



Gaia set up an educational corner inside her eco-garden to encourage everyone to adopt green habits. Before long, the school was producing more energy than it consumed, making it a Positive Energy School.





On Earth Day, Alex's father came to present the Super Duper Green School Award to Bucky, Gaia and Alex.

Handing them the trophy, he said, "We scientists really need to find a way to reduce the carbon dioxide we add to the atmosphere."

"How about a machine that turns carbon dioxide into green fuel?" Bucky suggested with a wink.

"Why," Alex's father exclaimed, "that's an idea!"

Afterword by CEO

The Building and Construction Authority (BCA) published our first storybook for children in 2015. Entitled *The Adventures of Greco & Beco: The Glass House*, the book featured Greco and Beco, our friendly Green Building mascots. It was distributed to schools and libraries island-wide, and it quickly became popular with young readers like yourselves.

Given the encouraging response, we decided to expand that one title into a series. In this second title, the story takes place in a setting that all students can relate to — school — and shows us what will happen when nobody cares about making our schools green and how this behaviour will affect us in the future.

With this storybook, I hope that we will become more aware of how resources are being used, and more importantly, how they can be conserved. It is my hope that as students, you will go one step further by leading green initiatives such as a Green Club or Green Corner in your schools to explore creative ways to cut down on resource usage. Together with the installation of rooftop solar panels, your school can produce more energy than it uses and achieve Zero or even Positive Energy status!

Continue with this green spirit even after you leave your primary schools by taking part in green activities and making your voices heard. I encourage you to be part of BCA's BiG (Build it Green) Club Junior for a chance to make a real difference to the green building landscape in Singapore.

As children, your attitude today will determine the liveability of tomorrow's built environment. Forward-thinking schools such as Da Qiao Primary School and Hong Wen School are mindful of this, and have already taken active steps to be more engaged in green awareness. I invite all of you to join them, and us, in this meaningful green building journey.

With you on board, I am confident that we can look forward to even more "Super Duper Green Buildings" in the future!



Mr Hugh Lim
CEO
Building and Construction Authority

Glossary

Acid rain

This is rain that has been polluted by harmful gases in the air caused by the burning of fossil fuels.

Dual-flush buttons

Toilets fitted with dual-flush buttons allow the user to flush using two different levels of water, usually a full flush for solid waste and a half flush for liquid waste.

Fossil fuels

These are natural substances such as gas, coal and oil that were formed millions of years ago from plant and animal remains.

Global warming

This is the gradual rising of the earth's surface temperature caused by increased levels of carbon dioxide from burning fossil fuels.

Green fuel

This is also referred to as biofuel. It is made from plants and animal material, and is more environmentally friendly than fossil fuels.

Positive energy school

This refers to a school building that generates more energy than required for the school's daily usage.

Tree-hugger

This refers to an environmental campaigner.

Water-saving thimble

This small plastic cap looks like a button and is fitted into taps and showerheads to control the flow of water.

Zero energy school

This refers to a school building that generates enough energy for the school's daily usage.



The Super Duper Green Building Club Members' Challenge

Here are some ways in which you can help make buildings in Singapore more environmentally friendly. Do your best to follow these tips and be a worthy member of the Super Duper Green Building Club!



Reduce your daily use of water

- Keep your shower under 5 minutes.
- Use a mug to contain water instead of leaving the tap running while brushing your teeth.
- Turn off the tap completely after use and make sure the tap doesn't drip.

Save electricity

- Switch off the fans and lights when leaving the room.
- Make use of sunlight. Open the windows to let natural light in. Don't switch on the lights unnecessarily.
- Use fans instead of air-conditioners where possible.

Reduce, Reuse and Recycle

- Reduce the use of plastic bags. Bring your own bag when buying things from the bookshop or supermarket.
- Reuse items as much as possible before throwing them away. For example, use both sides of a sheet of paper.
- Think about whether an item can be recycled before throwing it away. If it can be recycled, place it in the recycling bin.

A Note from Green Schools



Da Qiao Primary School, Green Mark Gold^{PLUS}

“At Da Qiao Primary School (DQ), we believe in the philosophy “Do GOOD, Feel GOOD”. We want our students to Do Good to the community, which includes caring for the environment. Only when students feel like they have played a worthwhile role in their community, will they Feel Good.

Here at DQ, we also teach our students about resource conservation, and the results of these lessons are manifested during platforms like the Green Gratitude Week and Values-In-Action (VIA) Day, where the school community lives out what we have learnt. In particular, we are very proud of our VIA Champs, who take the lead in our resource conservation and recycling efforts, amongst other endeavours.

Being Green Mark Gold^{PLUS} certified is our school's way of Doing Good for the environment, and it makes us Feel Good, knowing that we are collectively doing our part to conserve our resources for the future generations and nurturing responsible citizens who will continue this tradition for years to come.”

Mrs Joyce Ang, Principal



Hong Wen School, Green Mark Gold^{PLUS}

“Schools play an important role in educating our young to develop a deeper understanding of environmental issues. However, environmental education cannot be confined to the classroom. Students need to be engaged in real world issues confronting our environment, and acquire knowledge and skills to be creative problem solvers, which in the process, will develop their motivation to be advocates for environmental sustainability.

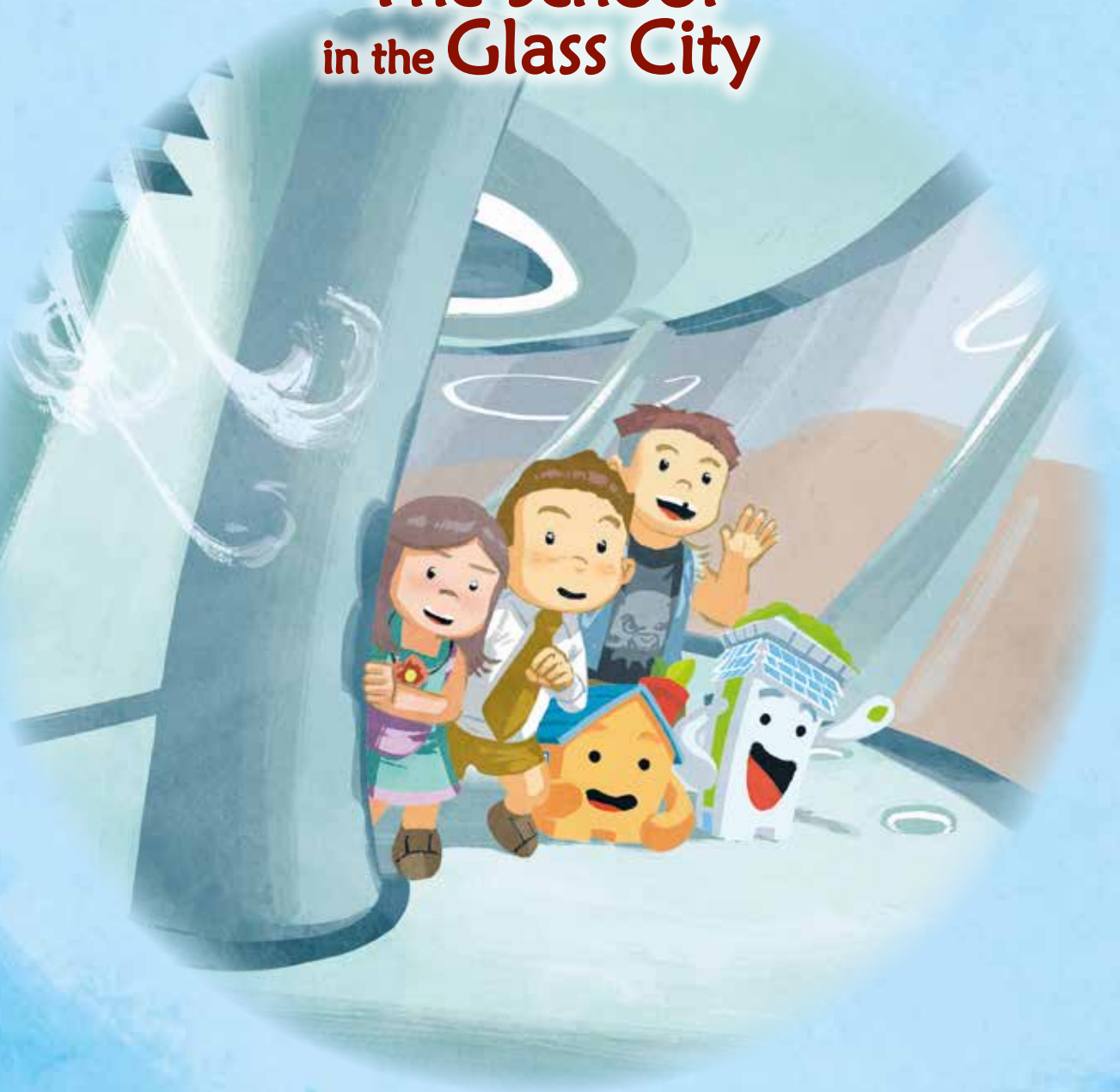
Hong Wen's environmental education programmes and initiatives are developed based on the overarching theme, “Protect Our Earth Together (POET)”.

We hope to raise the awareness of the school community towards our living environment, and help shape individual behaviour and practices that can lead to ecologically responsible decisions and lifestyles. Attaining the Green Mark Gold^{PLUS} certification is a strong encouragement to the school for our ongoing green efforts in sustainability.”

Mr Raymond Poon, Principal

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Learn more about Greco and Beco
and Singapore's green buildings at
www.facebook.com/bcagreen

Alex is not just mean to his schoolmates Bucky and Gaia; he also doesn't think twice about wasting natural resources! When things get out of hand, Greco and Beco decide to intervene. With the help of a little magic, they transport Alex forward in time. The Singapore of 2047 looks picture-perfect, but is it really? Follow Greco and Beco as they reveal the key to a sustainable future.

