THE 2024 YOUNG MATHEMATICAL STORY AUTHORS (YMSA) COMPETITION

THE STUART J. MURPHY AWARD

(THE 8-11 YEARS OLD CATEGORY)

LONGLISTED

‘The Cubiod’ by Leonora MacNamara (11 years old)

at St Christopher’s School (UK)

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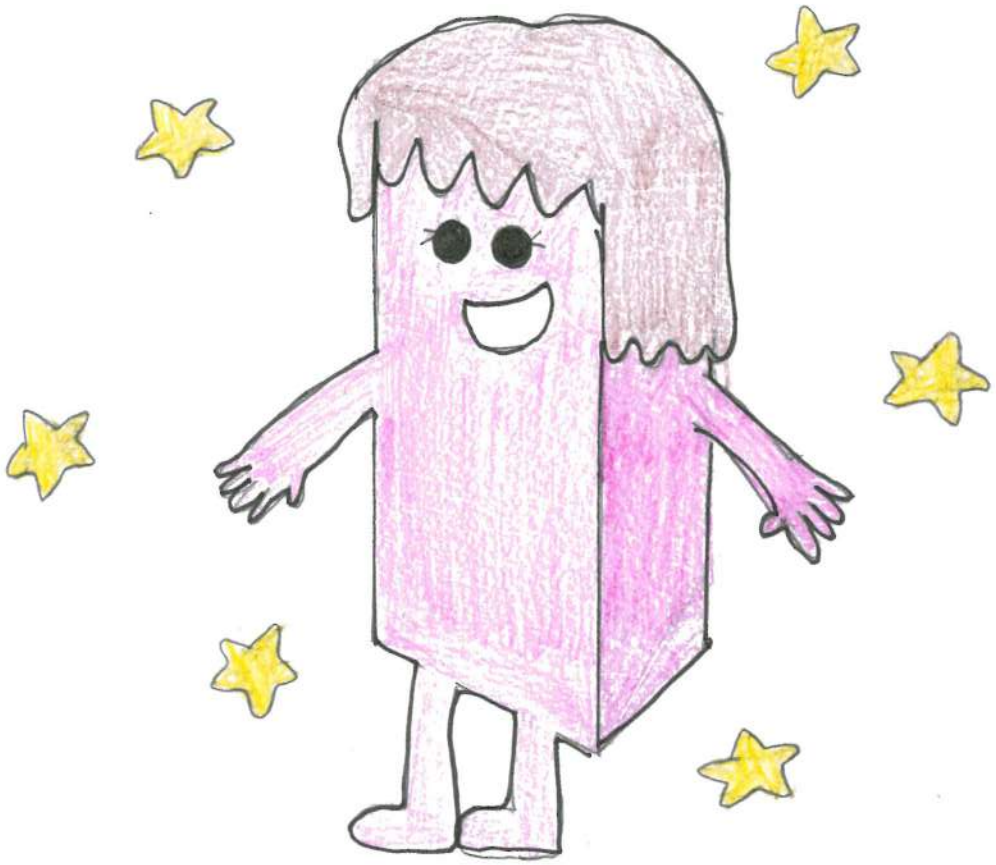
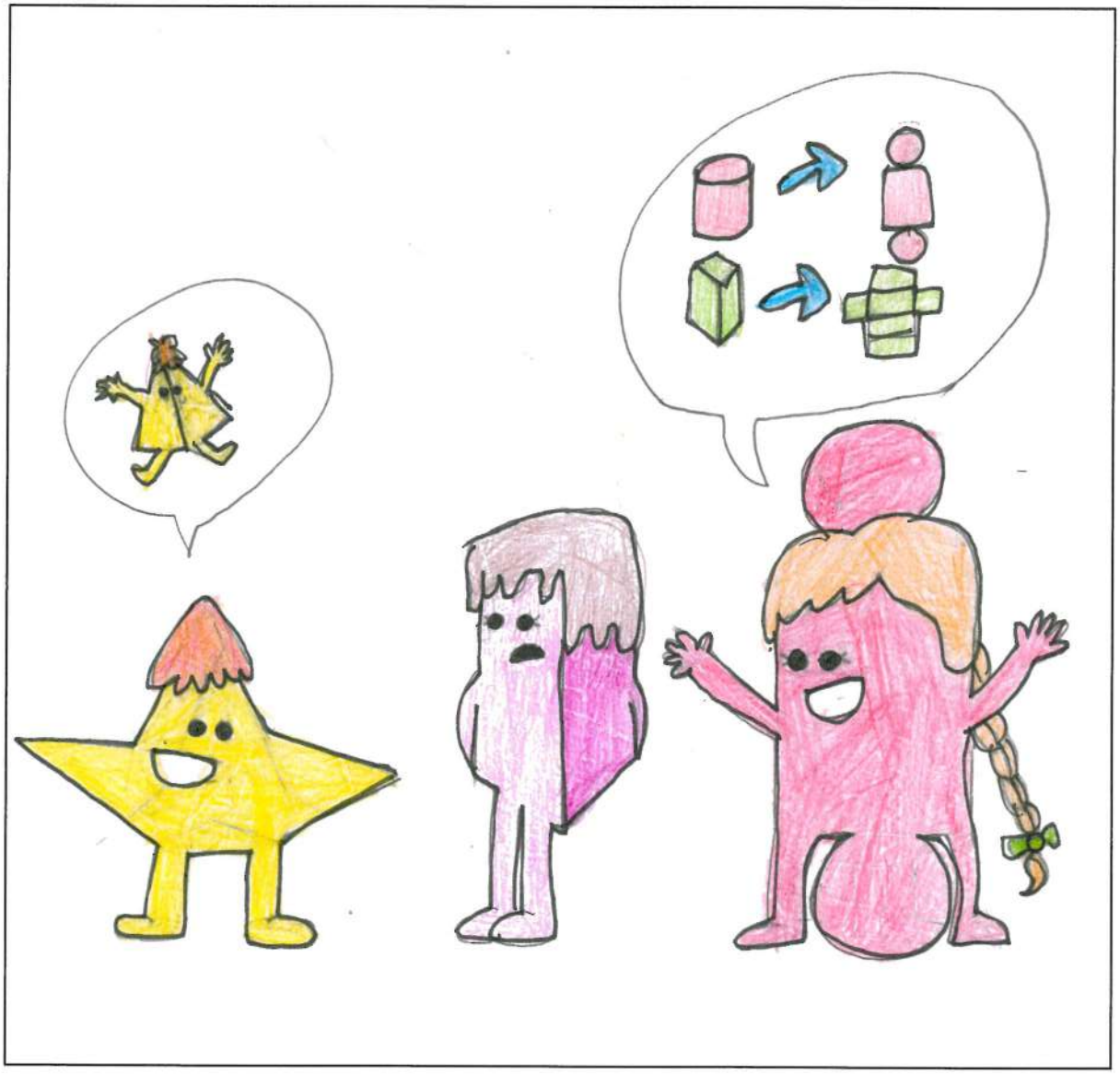
#YMSAMaths

CAROLINE THE CUBOID



Leonora MacNamara

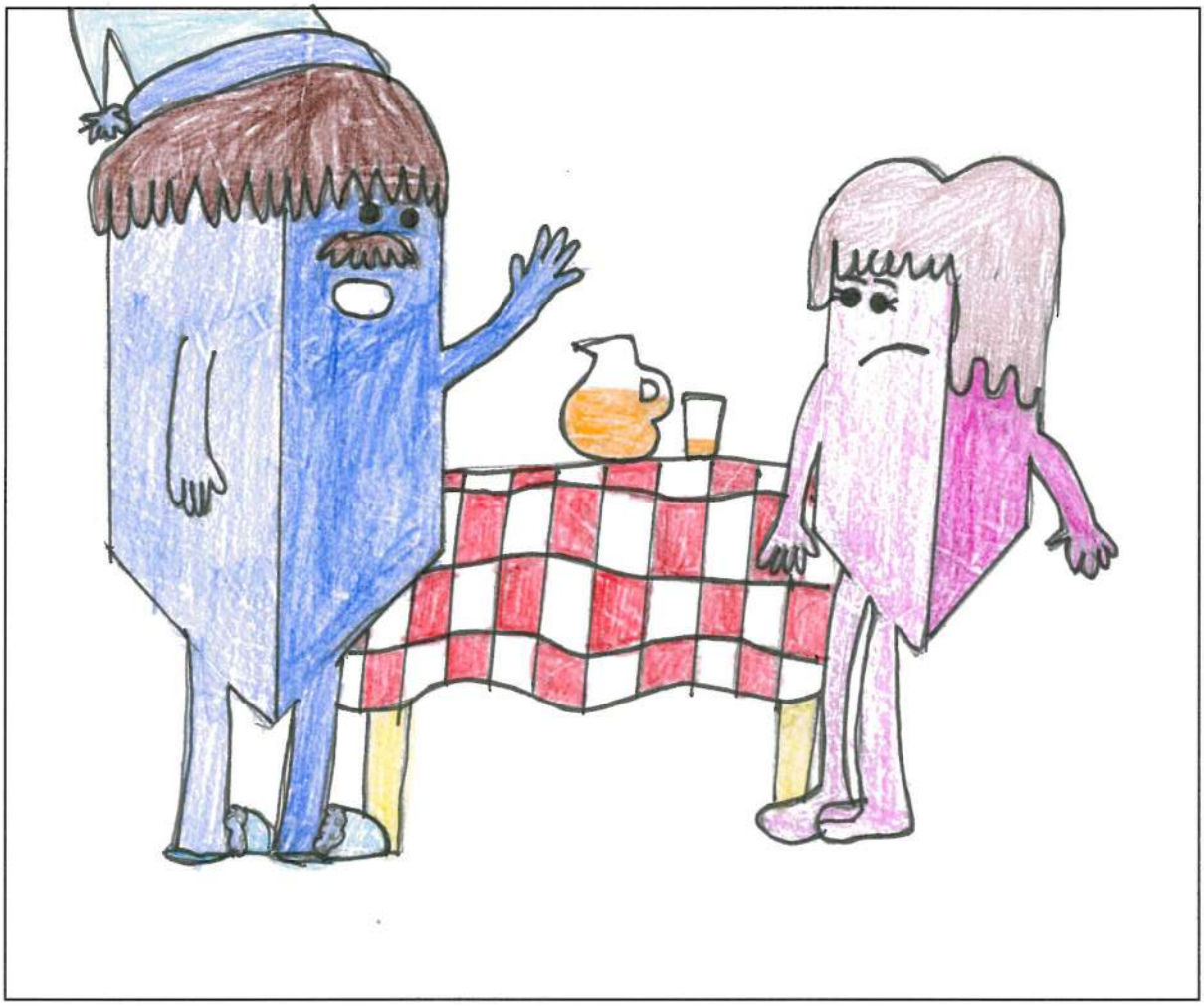
Caroline the cuboid was at school one day. She was very irritated by the fact that all of her friends at school were the nets of their original shape. Cindy was the net of a cylinder, and Tabib was the net of a tetrahedron. All the teachers were nets, all the receptions were nets, and all the other students were nets. All except Caroline. And the fact that everyone was a net made Caroline want to be a net too.¶



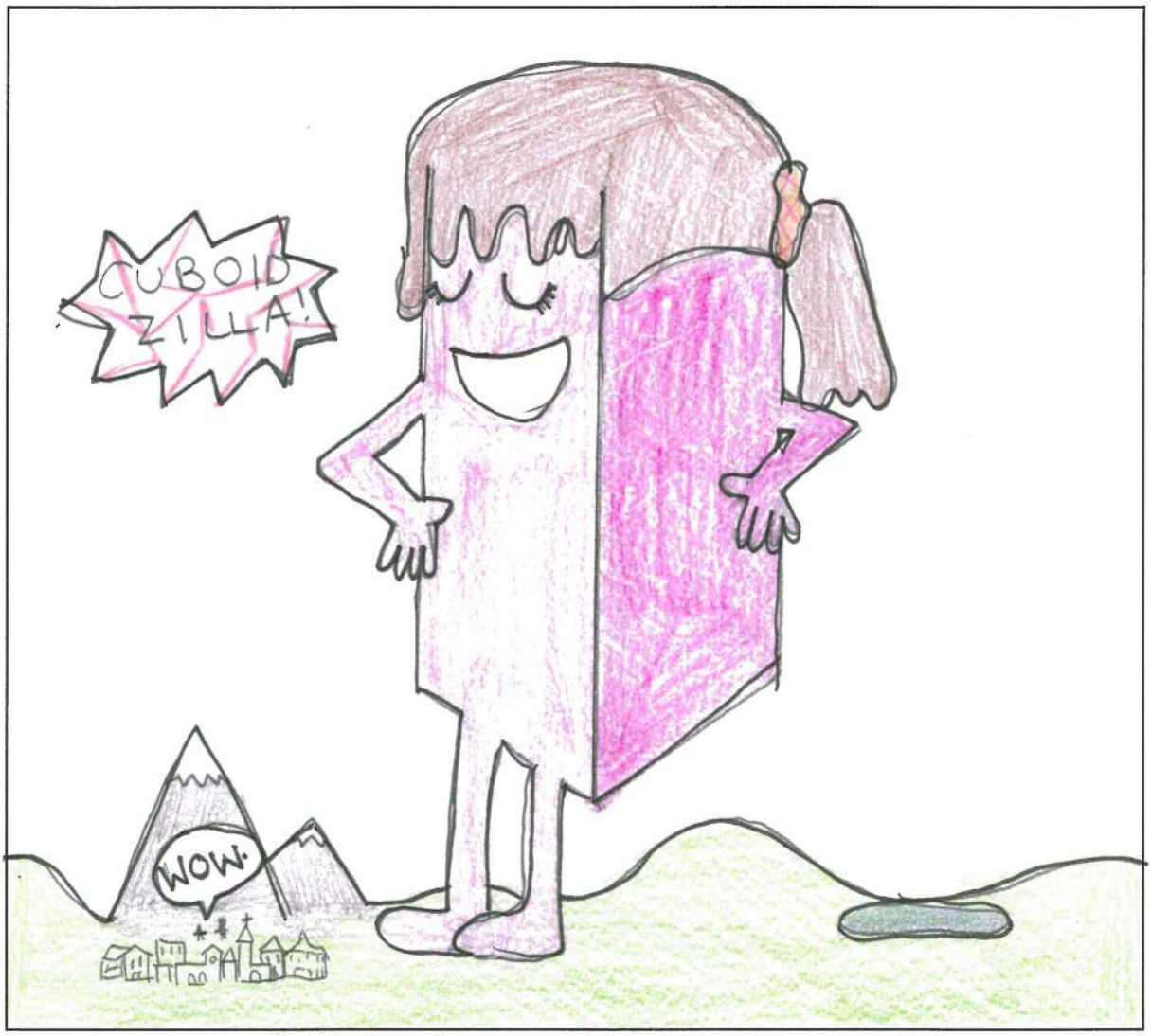
Caroline asked all of her friends if they knew how to turn into a net. Cindy said, "Well Caroline, when I was six my parents took me up to The top of Mount Ice Cream Cone to get transformed by Dr Geometrics herself! Since then I have never felt like a cylinder, and you know something, I like it!"
Tabib told Caroline,
"I used to have four faces, six edges and four vertices, now that I am flattened out, I sort of look like a star!"
Then Cindy told Caroline how she transformed.

"I used to have three faces, two edges and actually, I had no vertices! Now I look like a rectangle with circles on each end! My dad is a cuboid, he had six faces, twelve edges and twelve vertices."

Caroline went home that day and slept very well, but she couldn't work out why HER parents didn't take her to be transformed.

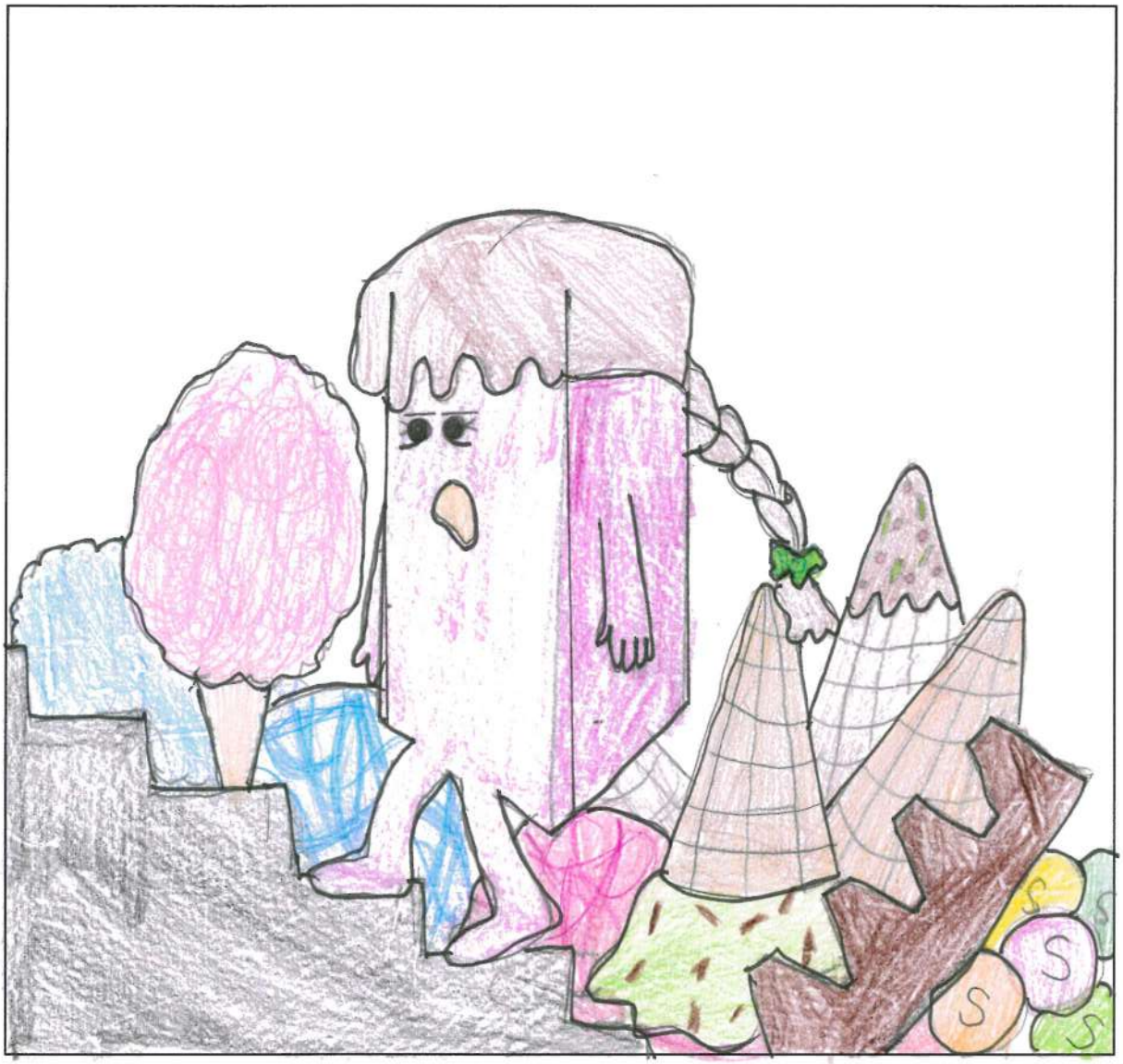


Caroline woke up the next morning confident, extremely confident. She marched into the kitchen and greeted her parents with a sentence.
"Mom, Dad, why am I not a net?" Her parents looked at her, puzzled. Then her dad said,
"Oh Caroline! we just wanted you to ask, that's all! We can take you up to The doctor, but it will cost a fortune! My my!". Caroline's Mom nodded steadily, along with Caroline's dad.

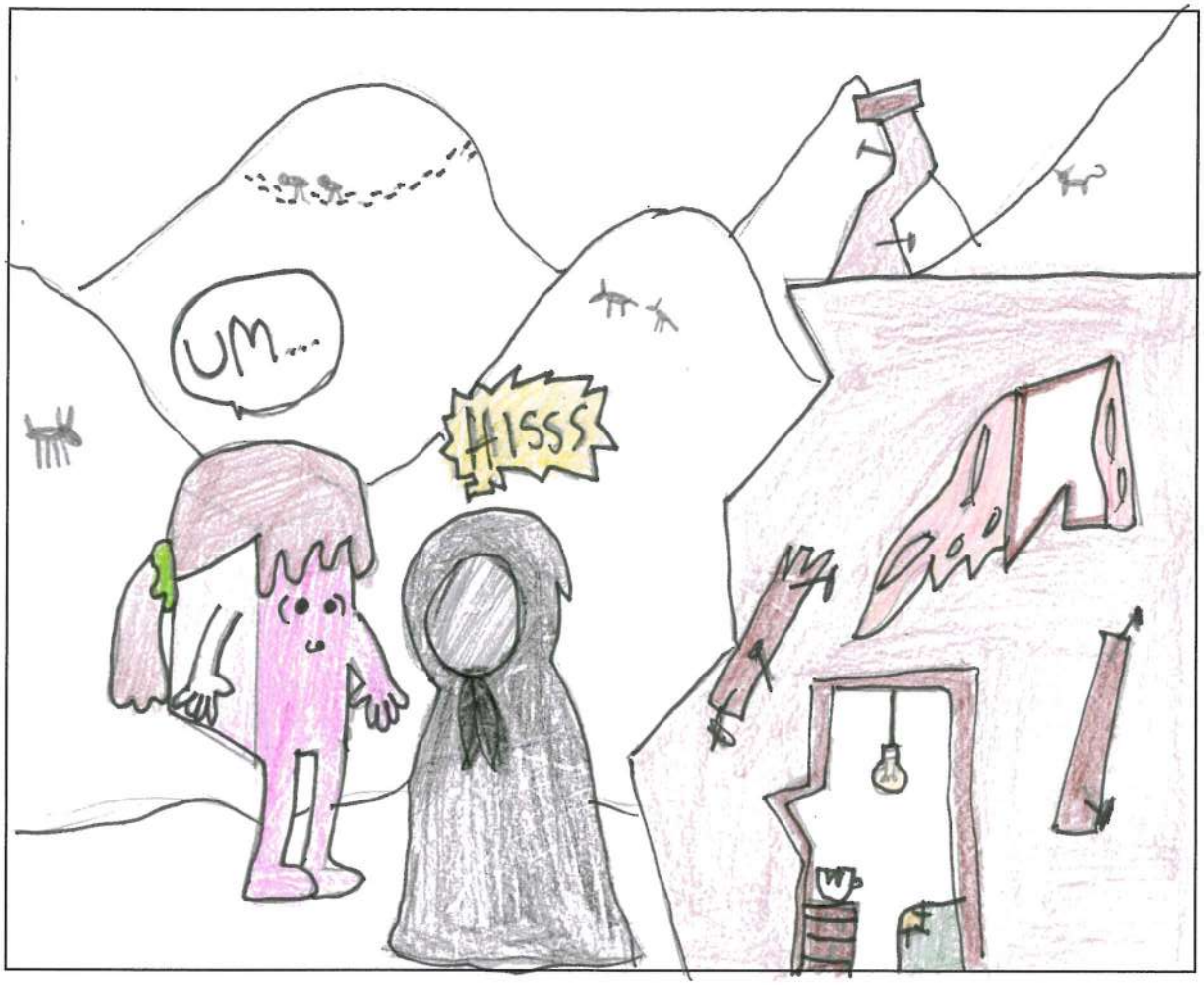


Caroline trotted boldly into school the next day. She declared proudly that she would be going up to Dr Geometrics in a week to Cindy and Tabib. Tabib congratulated her, followed by Cindy. Then Cindy added hesitantly,
"Caroline, you know that once you're a net you can never change back... and the Doctor even says those exact words herself! Just make sure it is your final decision, I don't want you to change just because you feel left out..."
Caroline waves her hand carelessly.
"Yes, yes, I know, people have told me..."

And finally, a week passed, it was time for Caroline to make the treacherous trek up the mountain to meet her dream. Caroline stuffed all of the things she would need on her journey in a little sack. She tied the sack to a long birch stick and hopped out of the window, yelling,
"ADIOS AMIGOS!"



Caroline came to the foot of the mountain, and started hiking up tirelessly. She passed many checkpoints, ice cream cone valleys, toblerone triangle abyss, and then malteser sphere springs. Caroline was beginning to get exhausted, endlessly exhausted. And... She wasn't even anywhere remotely near halfway.

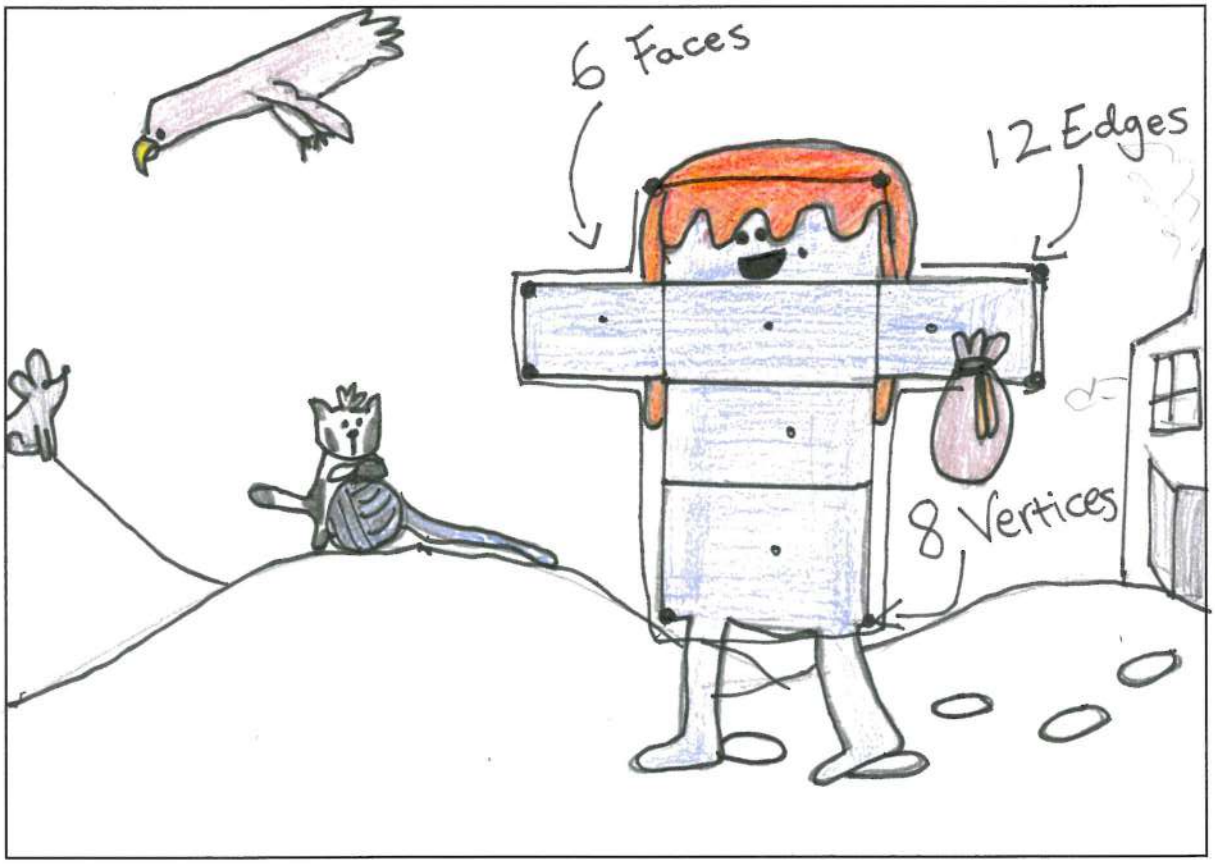


Caroline got up to the peak and patted herself heartily on the back. She stopped panting and rested her hands on her thighs, heaving deeply, in and out, in and out. A crooked house stood before her, with smoke billowing from the crooked chimney, and a crooked door swaying in the harsh gusts of wind, which was actually sherbet. A cloaked figure trod on out and sharply hissed. It said, "COME IN! COME IN! I HAVE BEEN AWAITING YOU... CAROLINE"
Caroline hesitantly tiptoed over the tuffets of sherbet to the shadow. Caroline hopped up to the entrance, and the door shut with a massive "SLAM!" behind her. The body slipped the rag off of their head and held their hand out warmly. "My name is Dr Geometrics, how about yours? Oh wait... I know, Caroline!"
The doctor exclaimed, Caroline nodded uneasily and shook her hand, anxious emotions spreading over her head.

The doctor had Caroline sit down on a checked armchair with a cup of hot chamomile tea to warm her up. The doctor started telling Caroline about her previous patients.

The doctor told Caroline everything.
"Yesterday Colin the cube came up to become a net, and his kids, you may know them, Calypso and Charlie, they went under the operation too, but Charlie got deathly sick. Don't worry, he'll be fine, they are nets now, beautiful, they are. Stella the sphere did come last year, but she was very disappointed that she didn't have a net, so she moved off to a 3d village, but wow that is far away! Torin-Pollia the triangular prism came about a decade ago. He took his 18 year old boy Tevin to me 5 days ago, Tevin was not happy. So Caroline, what brings you here? I imagine it is urgent".
"Yes, well, all of my friends at school are nets so..." Caroline mumbled.

The doctor led Caroline to the stretcher in the far corner. Caroline leaped onto it. The doctor handed her a glass of water, followed by a bottle of bubbling purple liquid.
"Drink it, NOW! it'll wear off in a minute!"
Caroline chugged it down, without a drop left. All of a sudden, she felt herself dismantling... SHE WAS A NET!
"I AM A NET!" she declared, and she celebrated on the stretcher, singing and whooping uncontrollably. Caroline felt herself and rushed over to the mirror that was hung up beside the boiling cauldron. Caroline saw herself and squealed like a pig. She had six faces, but no edges, no vertices! She exclaimed,
"Oh! I love my new colour! I'm blue! I'm no longer purple! I see how you did it, I unfolded! before I was like a box, now I am all flattened out! I love it!
Caroline reached deep down in her bag, her hand rummaging like a hungry animal. She pulled out some shimmering gold coins and they jingled in her hand. Caroline deposited the money on the weak wooden table beside the doctor, and scurried out of the door, hands waving, and hair swaying.
"THANK YOU!" The doctor didn't even have time to reply.

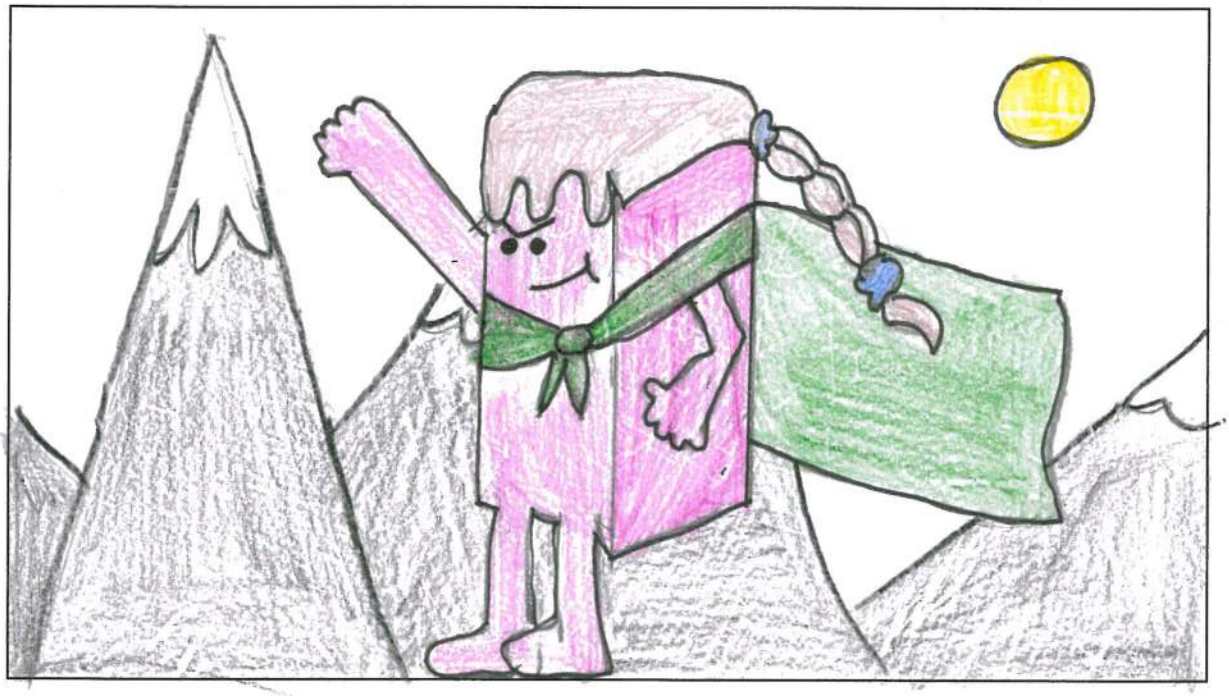


Caroline made the journey back to Netopia, and she decided that going down was easier than coming up, all of the once dangerous features of the mountain had gone to sleep. Caroline came into the entrance of Netopia, and passed the sign with awe. The engraved golden lettering beamed out at her, and the tamed ivy

curled around the corners mysteriously. Caroline trotted into her isolated neighbourhood and swung the door of her house wide open. Everybody in the household rushed to the door excitedly.
"Mom! Caroline is finally home!" her little brother Charlie squealed.
Caroline's mother came sprinting around the corner and embedded The figure standing in the doorway with a gigantic hug, enough to squeeze all of Caroline's breath out of her. Nobody spoke. Until Caroline said,
"Hey, how long have I been away? It only felt like three hours!" Charlie spoke up radiantly.
"Well, mommy sent all of the cops out on you, she was very worried about you, You were gone for a month or so. I am glad you are back though, big sister!"
Caroline looked puzzled. Very puzzled.
"My watch says that it's only been a couple hours! how strange..."
Caroline's parents sighed. they said with a tear in their eye,
"Well we are only glad you are back".
Caroline nodded steadily.
They all sat down for dinner, and Caroline explained everything.
Caroline's older sister, Charlotte, pointed out that Caroline was blue, and everybody started trying to touch her, because nobody in the family was blue.
Caroline went to school the next month after she had healed and told everybody about her journey.¶

BLURB

Caroline wants to become a net of her shape to fit in at school, but will she make the trek up mount ice cream cone safely to get to the doctor? Caroline will have to pass through lots of dangerous things on her way up, only to meet her destiny to be a net.



ABOUT THE AUTHOR

Hi, I'm Leo and I go to St Christopher's School in London.

When I was brainstorming ideas for my story I thought of geometry, and some great ways to explain it using a story. Caroline the Cuboid was my first idea, though originally it was supposed to be that Caroline wanted to become a 2d shape, but then I thought that I could teach a story about nets and how you can make them into 3d shapes.