THE 2024 YOUNG MATHEMATICAL STORY AUTHORS (YMSA) COMPETITION

THE STUART J. MURPHY AWARD

(THE 8-11 YEARS OLD CATEGORY)

SHORTLISTED

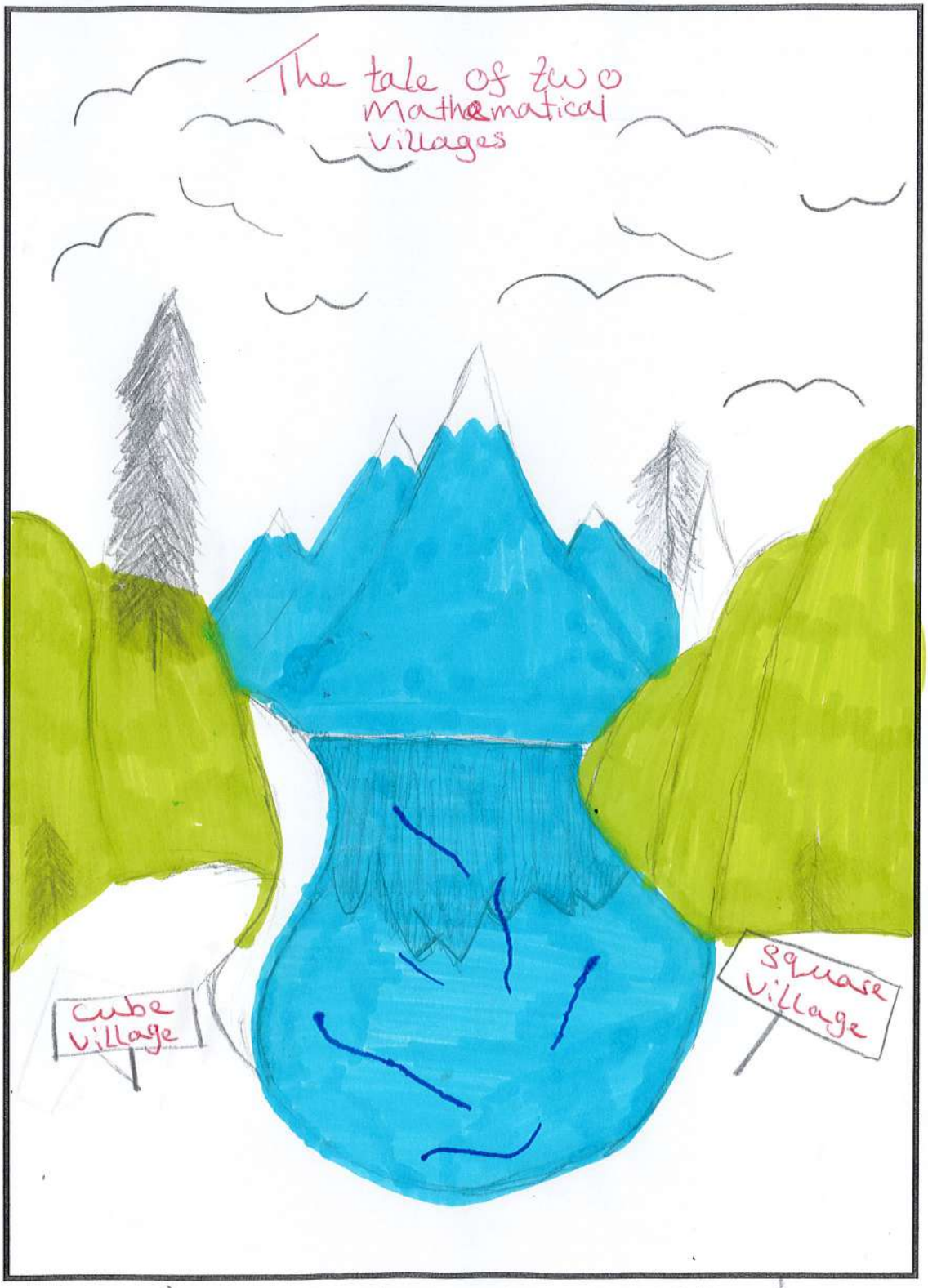
'The Tale of Two Mathematical Villages' by Louise Hirsh (11 years old)
at Norland Place School (UK)

You can read the author's inspiration for the story and the judges' comments on:

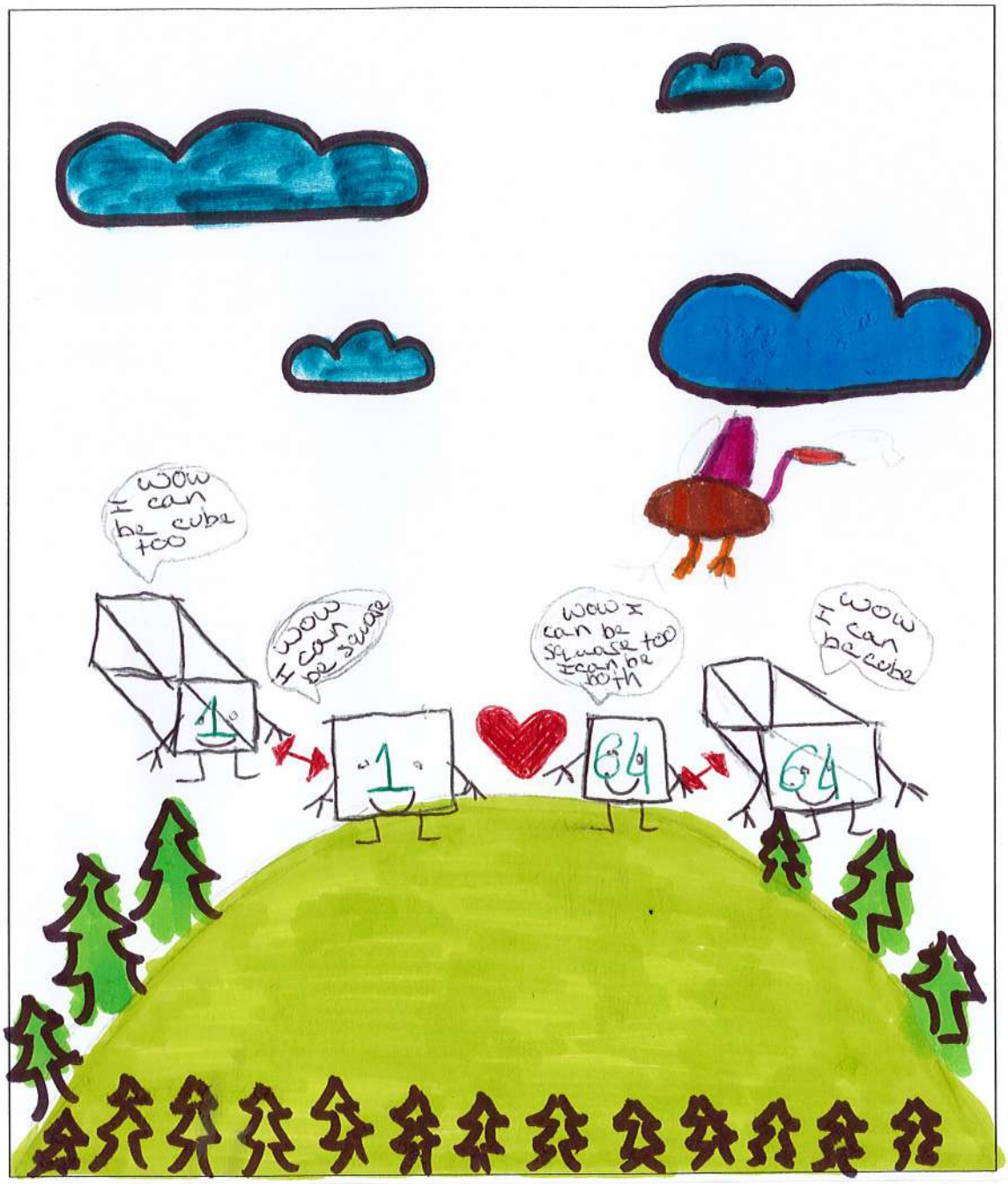
www.mathsthroughstories.org/ymsa2024

#YMSAMaths

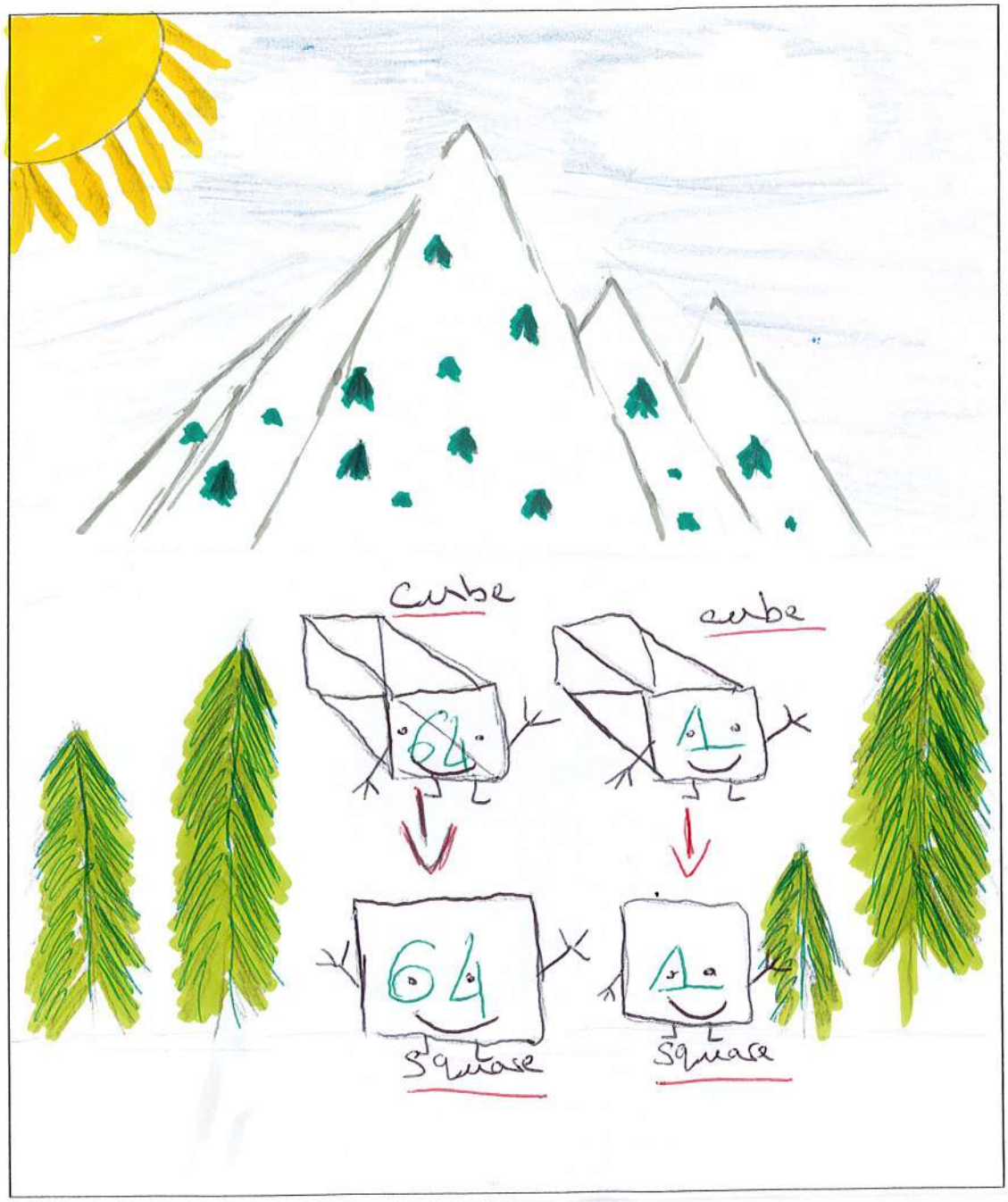
NORLAND PLACE SCHOOL



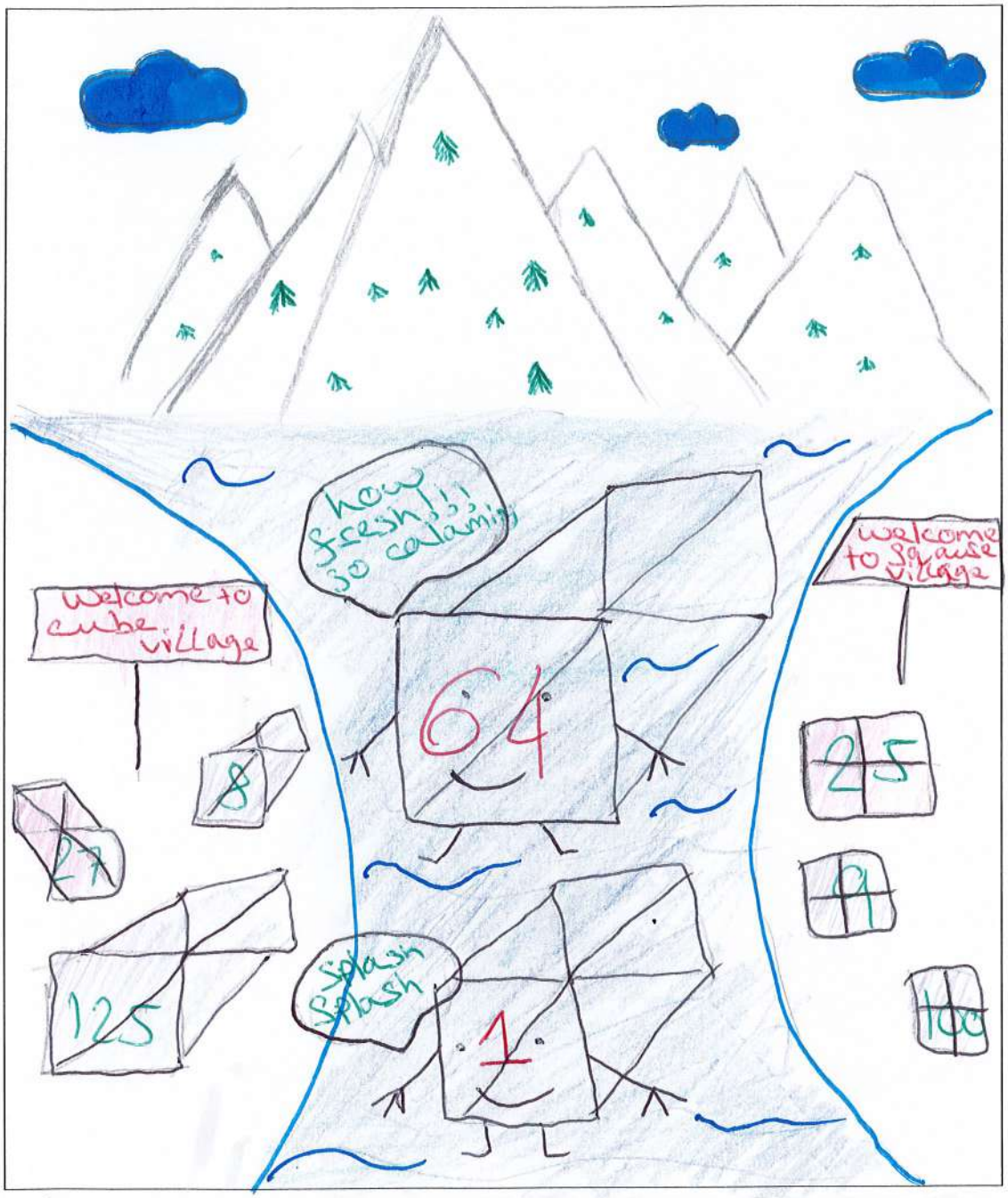
Author: Louise Hirsh
School: Norland place School



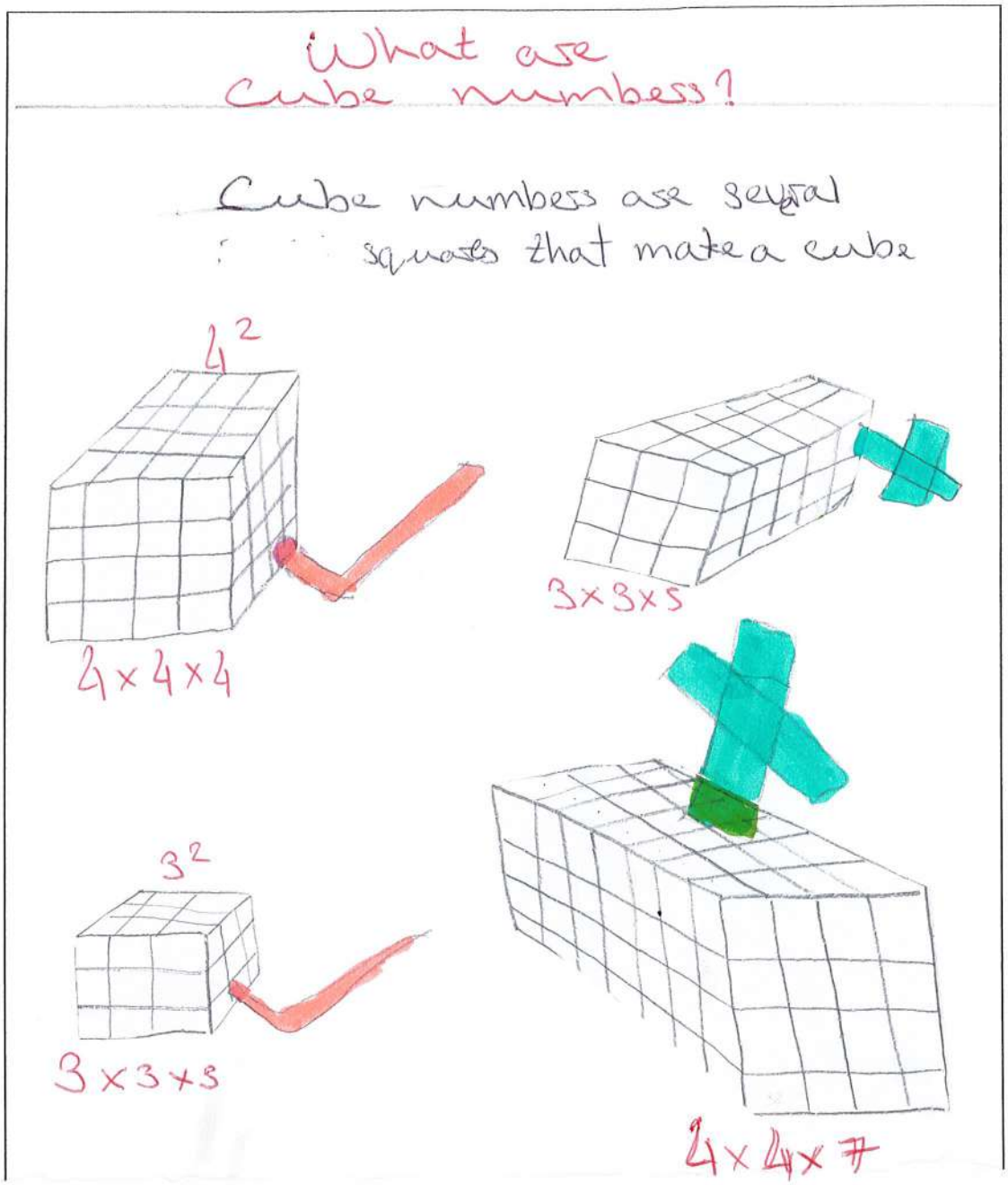
64 and 1 have just been dropped of by a stalk. They are brothers and sisters.it is a cloudy day. The siblings are on a hill in the mountains. There is a lake that separates the mountain in half. On either side of the mountain there are two villages, one called cube village, where all the cube numbers live (for example:27,8,125). On the other side was a village called square village were all the square numbers lived (for example:25,4,100). These two villages hate each other.



64 and one have just realised that they can be square and cube they belong in both families. They don't know which one to live in. " I am lost in making the decision of where to live" said 1," me too", replied 64. "Both of these villages are our home" exclaimed 1.



They reached a lake ~~so~~ and decided to have a swim. The water was nice and cool. So the lake separated the villages cube village and square village. There were signs on either side of the lake saying the villages name. 64 said" I am really worried about making the decision where to live" ~~l~~let's not worry about that now ~~were~~ we're in the water, lets have fun!!!"1 said happily.

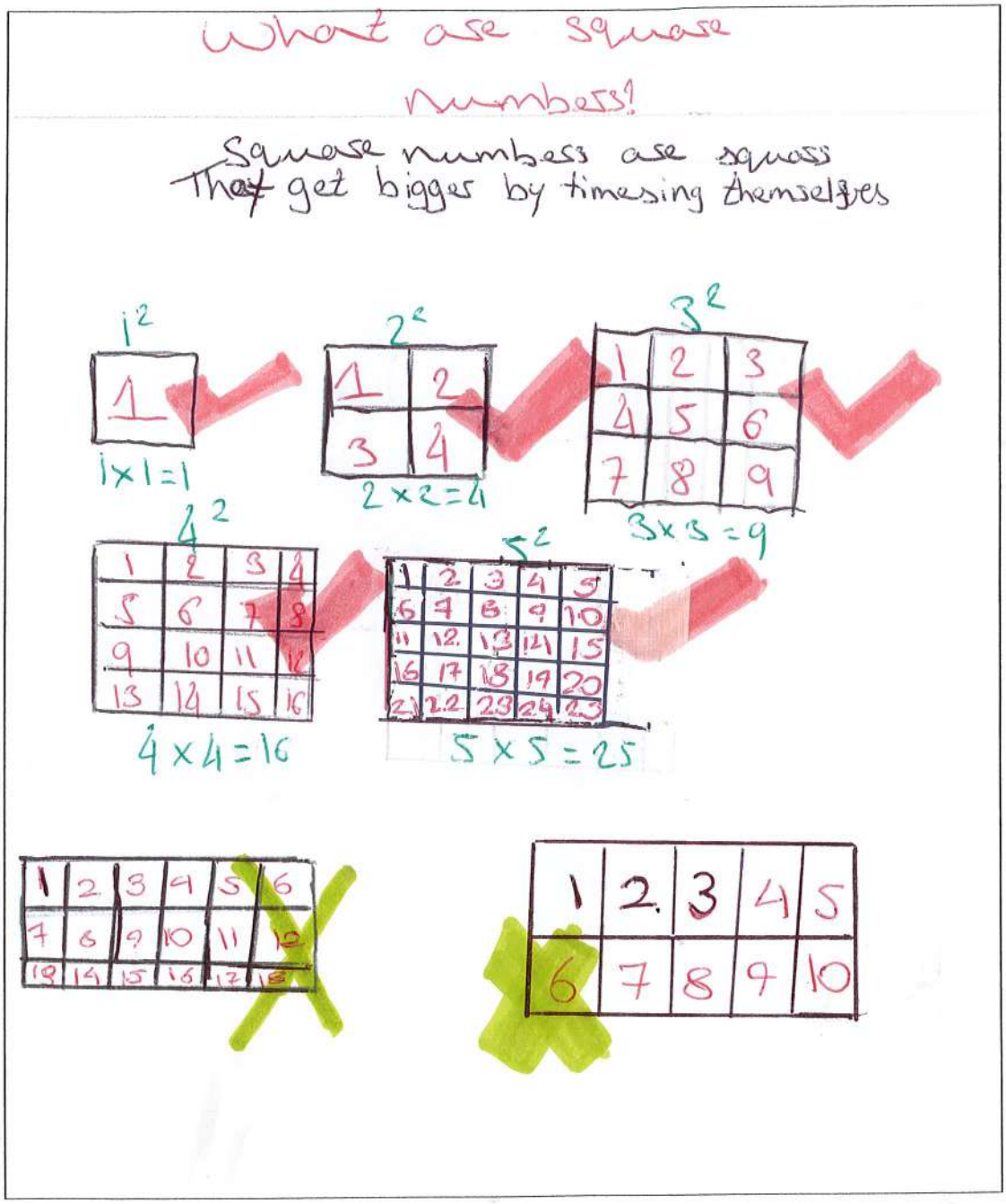


So you might not understand the story yet but when I tell you this your mind is going to be blown.

What is a cube number?

A cube number is a number that has been multiplied by itself and then multiplied by itself again. It is the product of three equal numbers. For example, 8 in a cube number because 2x2x2=8 The symbol for cubed is ^{3}. For example, 8 is a cube number because it's 2 x 2 x 2; this is also written as 2^3 ("two cubed"). Another example of a cube number is 27 because it's 3^3 (3 x 3 x 3, or "three cubed").

So now you understand a cube number, but do you understand a square number?

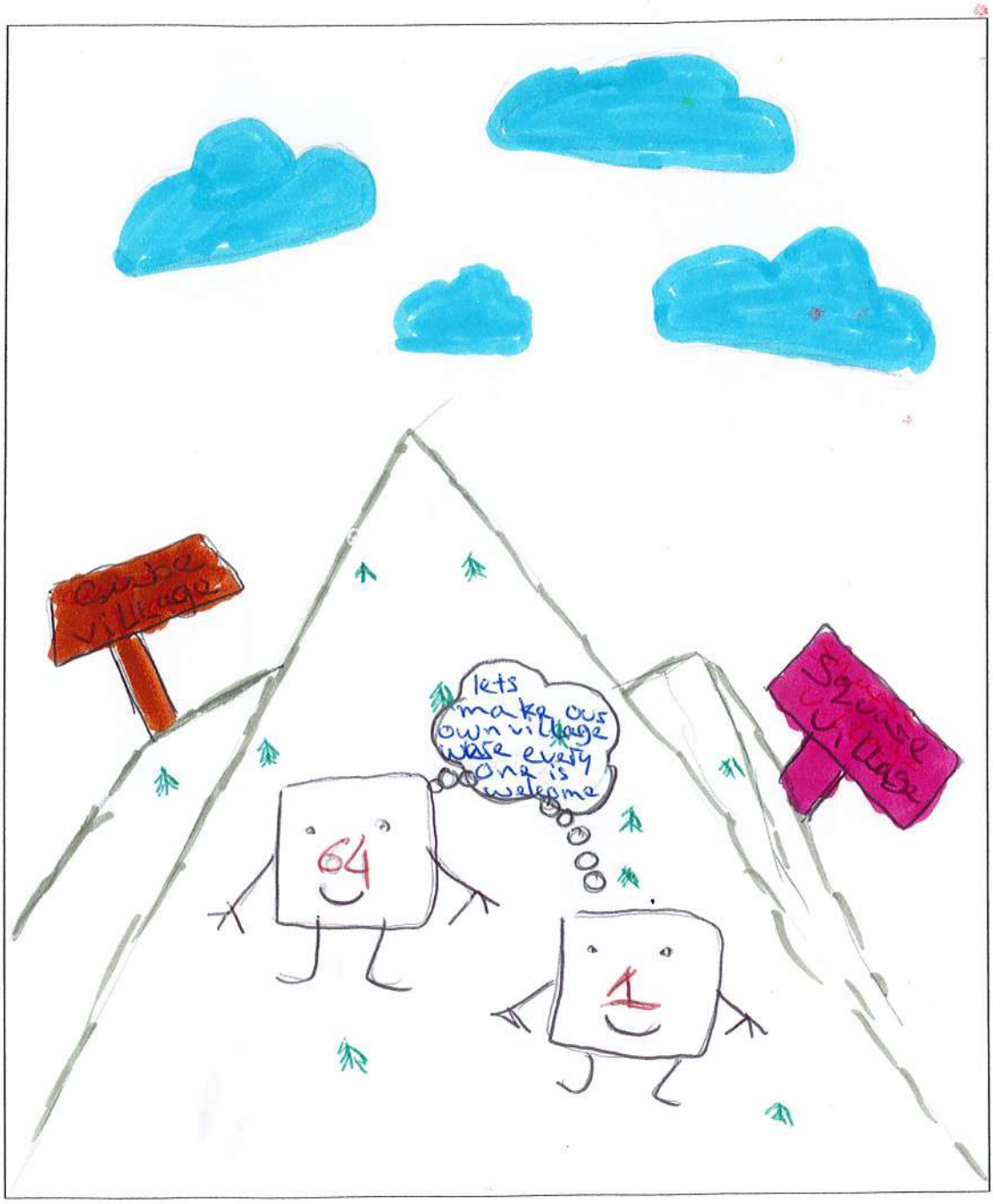


So, I made it clear what a cube number is but what is a square number? I am going to make your brain explode with this meaning.

What is a square number?

A square number is the result when a number has been multiplied by itself. For example, 25 is a square number because it is 5 groups of 5, or 5 x 5. This is also written as 5^2 ("five squared"). 100 is also a square number because it's 10^2 (10 x 10, or "ten squared").

So now I've told you what a cube and square number is which village are they going to choose? To live with the square family or the cube family.
So off they went...
So now we all know that they can be both magic numbers but which one to be recognized as? They sat all day long on the mathematical bench thinking and thinking about that one question. It was a sunny day where clouds came and gone so the numbers made sure to put lots of suncream. And finally they came to a decision.



They set of and walked to the center point between the two villages. They thought is was so hard to make a decision were to live and spent the rest of your life in, that they decided to make there own village. It could welcome both cube and square numbers, ~~are~~ Everyone could meet new people, there could be cube shops, square houses etc. This would be the best and funniest village yet. It would be on top of the lake where it ends.

As the time went by, the two magic numbers were very busy building a new village.
They worked morning and night to make it perfect.

Two whole years past and the everybody's welcome village was finally complete. It was very empty for a while but so suddenly, a big wave of numbers came in and the popularity of the village never went away.

This was the best idea in centuries. Cube and square numbers loved being together. Everyone was so happy the villages were full of mixed numbers, and it was good to meet new numbers and discover their personality.
We have all learned that in this story, It is good to know people or numbers that aren't the same as you. You learn a lot and realize we are all human or numbers and it doesn't matter where you come from or what you believe in. In total, we are all friends.

BLURB

64 and 1 are cube and square numbers they are lost in the decision of were to live. A village with only cube numbers or a village with only square numbers? Who knows...

Square

Cube

ABOUT THE AUTHOR:

This book was extremely fun to write. Writing about my passion (maths) and exploring a world of creativity. I love cube and square numbers. It is very fun to use them in maths.