



**THE 2022 YOUNG MATHEMATICAL STORY AUTHOR (YMSA) COMPETITION**

**THE CINDY NEUSCHWANDER AWARD  
(THE 12-15 YEARS OLD CATEGORY)**

## **LONGLISTED**

'Sea of Hope' by Chace Chong (12 years old)  
at Bucklands Beach Intermediate School (New Zealand)

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

**[www.mathsthroughstories.org/ymsa2022](http://www.mathsthroughstories.org/ymsa2022)**

**#YMSAMaths**



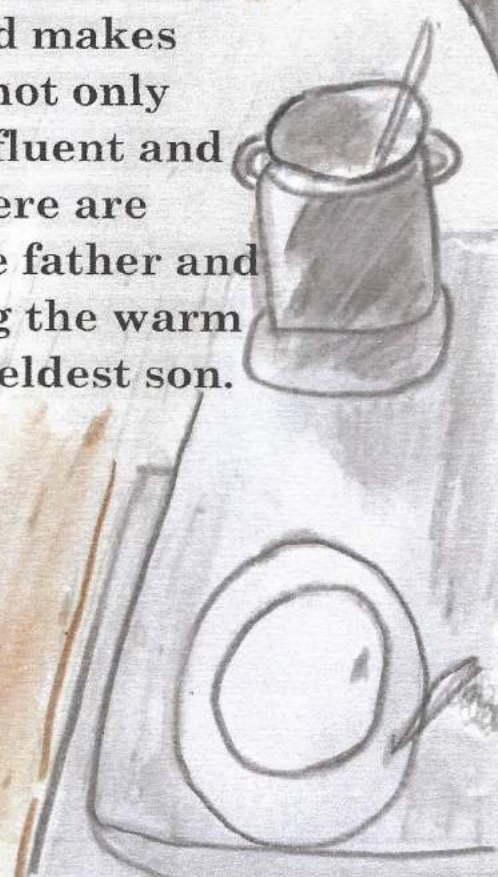
# SEA OF HOPE

CHACE CHONG  
BUCKLANDS BEACH  
INTERMEDIATE

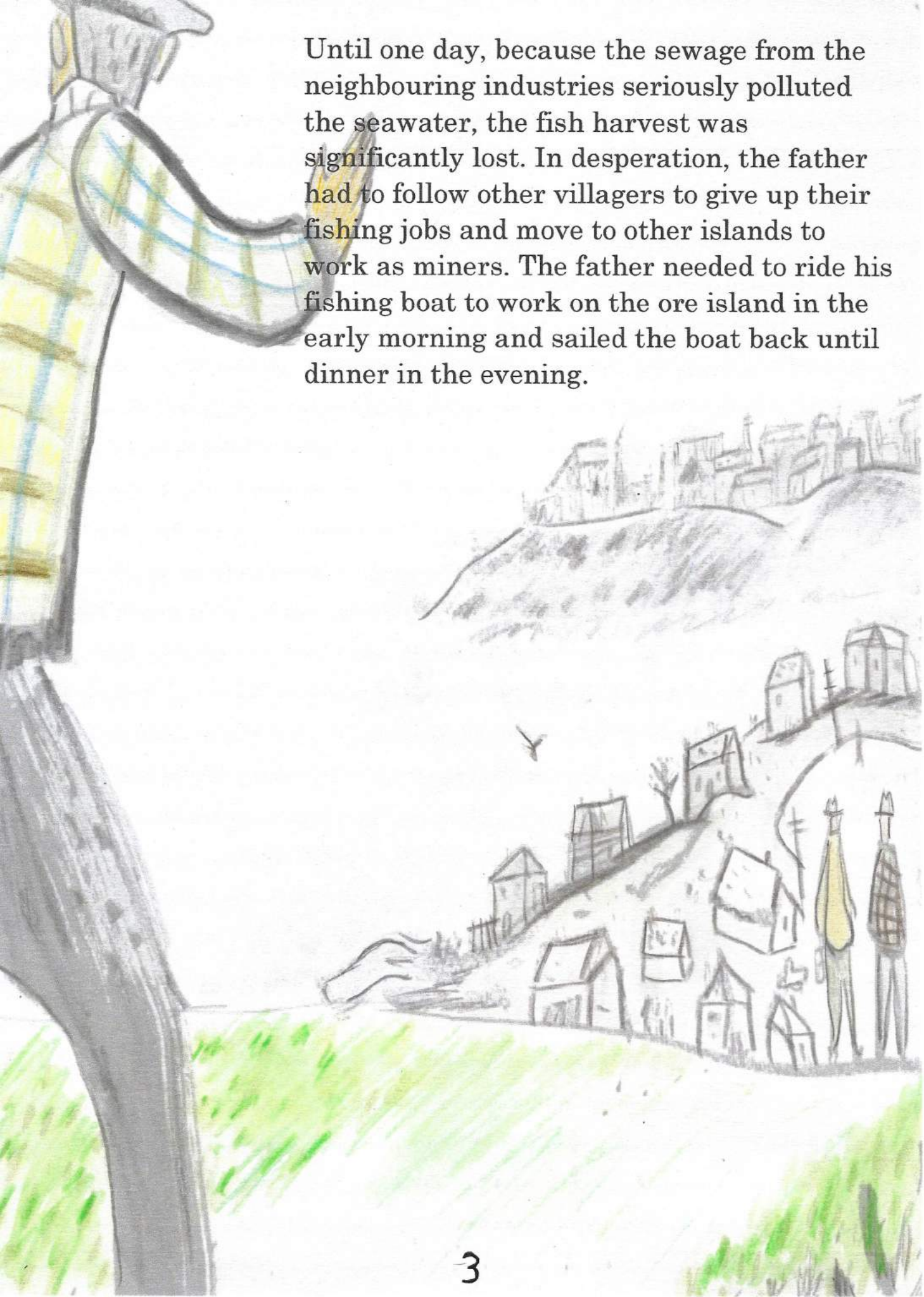




In a peaceful and quiet fishing village, a family of four lives in harmony. The father is a fisherman, and he often brings his two sons, 12 and 8 years old, to fishing in the sea, while his mother always grows vegetables and makes clothes at home. They love the sea, not only because the vast sea brings them affluent and prosperous life, but also because there are sweet and beautiful memories of the father and sons. Seeing the blue sea and feeling the warm sunlight has become a hobby of the eldest son.



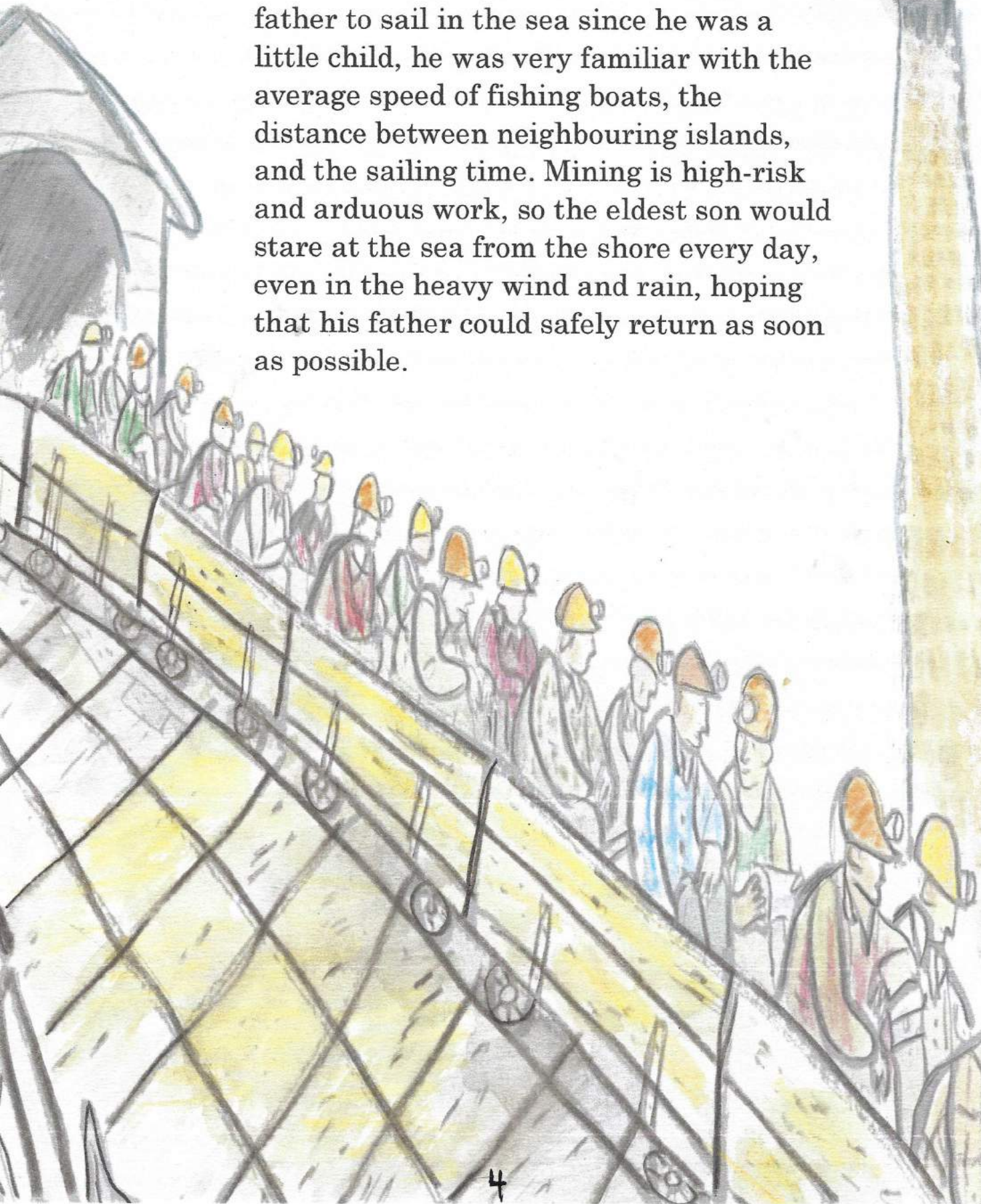




Until one day, because the sewage from the neighbouring industries seriously polluted the seawater, the fish harvest was significantly lost. In desperation, the father had to follow other villagers to give up their fishing jobs and move to other islands to work as miners. The father needed to ride his fishing boat to work on the ore island in the early morning and sailed the boat back until dinner in the evening.



Since the eldest son had followed his father to sail in the sea since he was a little child, he was very familiar with the average speed of fishing boats, the distance between neighbouring islands, and the sailing time. Mining is high-risk and arduous work, so the eldest son would stare at the sea from the shore every day, even in the heavy wind and rain, hoping that his father could safely return as soon as possible.





On a sunny afternoon, the eldest son took his younger brother to the beach to wait for their father again. When the younger brother saw that his elder brother had written a bunch of numbers and equations on the beach, he felt very curious, then the elder brother asked the younger brother: "What time will Father arrive? If the speed of the boat is 15km per hour and the distance between two islands is 5km"

$$\begin{array}{c} \triangle \\ \text{D} \\ \hline \text{S} \quad \text{T} \end{array} = \text{Distance} = \text{Speed} \times \text{Time}$$

(Km)                      (Km/h)                      (hour)

$$\begin{array}{c} \triangle \\ \text{D} \\ \hline \text{S} \quad \text{T} \end{array} \quad \text{Time} = \frac{\text{Distance}}{\text{Speed}}$$

(hour)                      km                      Km/h

$$\begin{array}{c} \triangle \\ \text{D} \\ \hline \text{S} \quad \text{T} \end{array} \quad \text{Speed} = \frac{\text{Distance}}{\text{Time}}$$

(Km/h)                      Km                      hour

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$$\begin{array}{c} \triangle \\ \text{D} \\ \hline \text{S} \quad \text{T} \end{array} \quad \text{Time} = \frac{\text{Distance}}{\text{Speed}} \quad \text{Distance} = 5 \text{ Km} \quad \text{Speed} = 15 \text{ Km/h}$$

$$\text{Time (hour)} = \frac{\text{Distance}}{\text{Speed}} = \frac{5 \text{ Km}}{15 \text{ Km/h}} = \frac{5}{15} = \frac{1}{3} \text{ hour}$$

$$\frac{1}{3} \times 60 \text{ minutes} = 20 \text{ minute}$$

So the father will arrive in 20 minute







Soon after, the father's boat began to moor and dock. The two sons happily greeted him at home for dinner. The two sons still hugged their most beloved father even though the dad was covered in mud from head to toe after a hard day's work. After dinner, the father told the eldest son: "Tomorrow is the payday; you do not need to pick me up at the pier. After taking your younger brother to the park to play, go home early to help your mother prepare a decadent dinner to celebrate.



The next day, the eldest son took his younger brother to play around and went to the park to play on the swing again. They played so happily and almost forgot the time. The older brother suddenly tested whether the younger brother had understood the application of the distance, speed, and time formulas that taught him yesterday. The elder brother asked the younger brother: "We now run home together. Can you estimate how fast we run if the distance between the park and home is 2km and it normally takes us twelve minutes to run back home.?"



$$\text{Speed}_{\text{Kmh}} = \frac{\text{Distance}_{\text{Km}}}{\text{Time}_{\text{hour}}}$$

$$\begin{aligned} \text{Distance} &= 2 \text{ Km} \\ \text{Time} &= 12 \text{ min} \end{aligned}$$

$$12 \text{ minutes} = \frac{12}{60} = \frac{1}{5} \text{ hour} = 0.2 \text{ hour}$$

$$\begin{aligned} \text{So } 12 \text{ minutes is} \\ &= 0.2 \text{ hour} \end{aligned}$$

$$\text{Speed} = \frac{2 \text{ Km}}{0.2 \text{ hour}}$$

$$\text{Speed} = 10 \text{ Km/h}$$

So they are going to run home at 10 Km/h Speed



After he finished speaking, he immediately ran home. The two brothers ran home quickly, panting and grinning.

Meanwhile, they saw that the mother had almost prepared a table full of decadent dishes and looked at the clock; the father should have almost returned home. The eldest son stood outside the gate, hoping to see his father as soon as possible, telling him that his younger brother was very talented in mathematics and taught him a lot of mathematical formulas and theories. An hour passed; the father still did not go home; the eldest son ran to the pier. A group of villagers gathered near the dock, crying loudly. The mine supervisor had announced an accident that happened at the mine exit. Twelve miners were buried alive under the sand and mud, including his father.



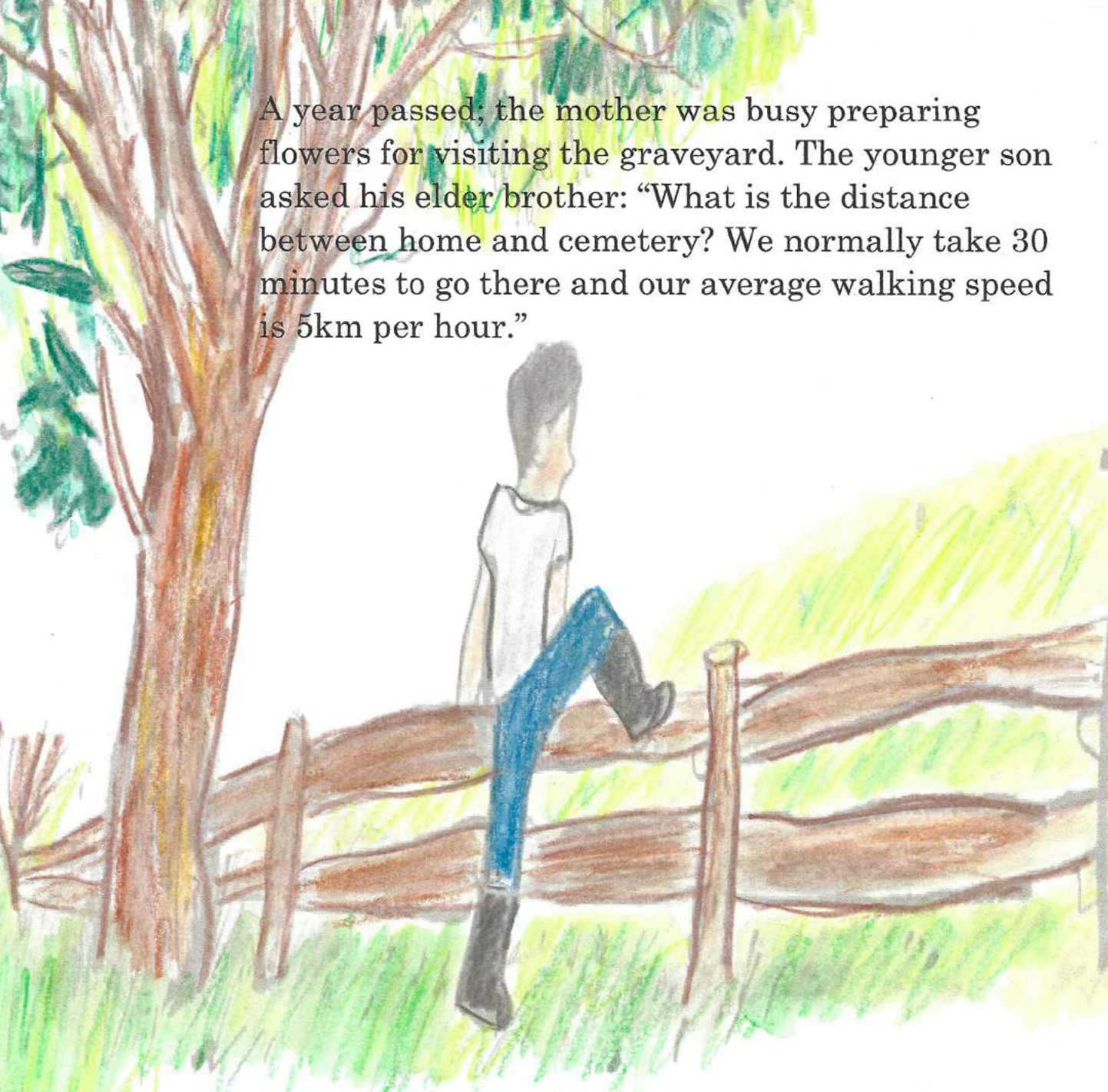


It had been three months since the incident happened, the mother still wept bitterly every day, and the eldest son went to the seaside from morning to night to look at the sea. Still, now the sea in his heart was just as dark as the sea at night. There was only a feeling of emptiness and loneliness. One night, the stars were bright and brilliant, and the younger brother came to the beach to accompany his elder brother. The two brothers suddenly looked at each other in tacit understanding and then stared at the stars' soft light reflected on the sea surface. they remembered what their father once said: "No matter how dark ina life, there will always be a light of hope to lead you to the future."





A year passed; the mother was busy preparing flowers for visiting the graveyard. The younger son asked his elder brother: "What is the distance between home and cemetery? We normally take 30 minutes to go there and our average walking speed is 5km per hour."



$$\text{Speed} = 5 \text{ Km/h} \quad \text{Time} = 30 \text{ minutes}$$



$$\text{Distance (Km)} = \text{Speed (Km/h)} \times \text{Time (hour)}$$

$$T = \frac{30}{60} = \frac{1}{2} \text{ hour} = 0.5 \text{ h}$$

$$D = 5 \text{ (Km/h)} \times 0.5 \text{ (hour)} \quad \underline{D = 2.5 \text{ Km}}$$



Years later, the sons have grown up. The younger son used his mathematical talent to become a professor of mathematics at the National University. The eldest son entered the navy, became a captain of the navy, and continued to love this magnificent sea because the sea will always be the bridge of their infinite love and miss for their father.





This is a story about a father and his sons which shows a continuation of his spirit and manifestation of his values. He is forever the best model inspiring courage, giving belief that his love to his sons and his personal empowerment is right here and right now – no matter what the past contained.



Author: Chace Chong

12 Years Old

Buckland's Beach Intermediate