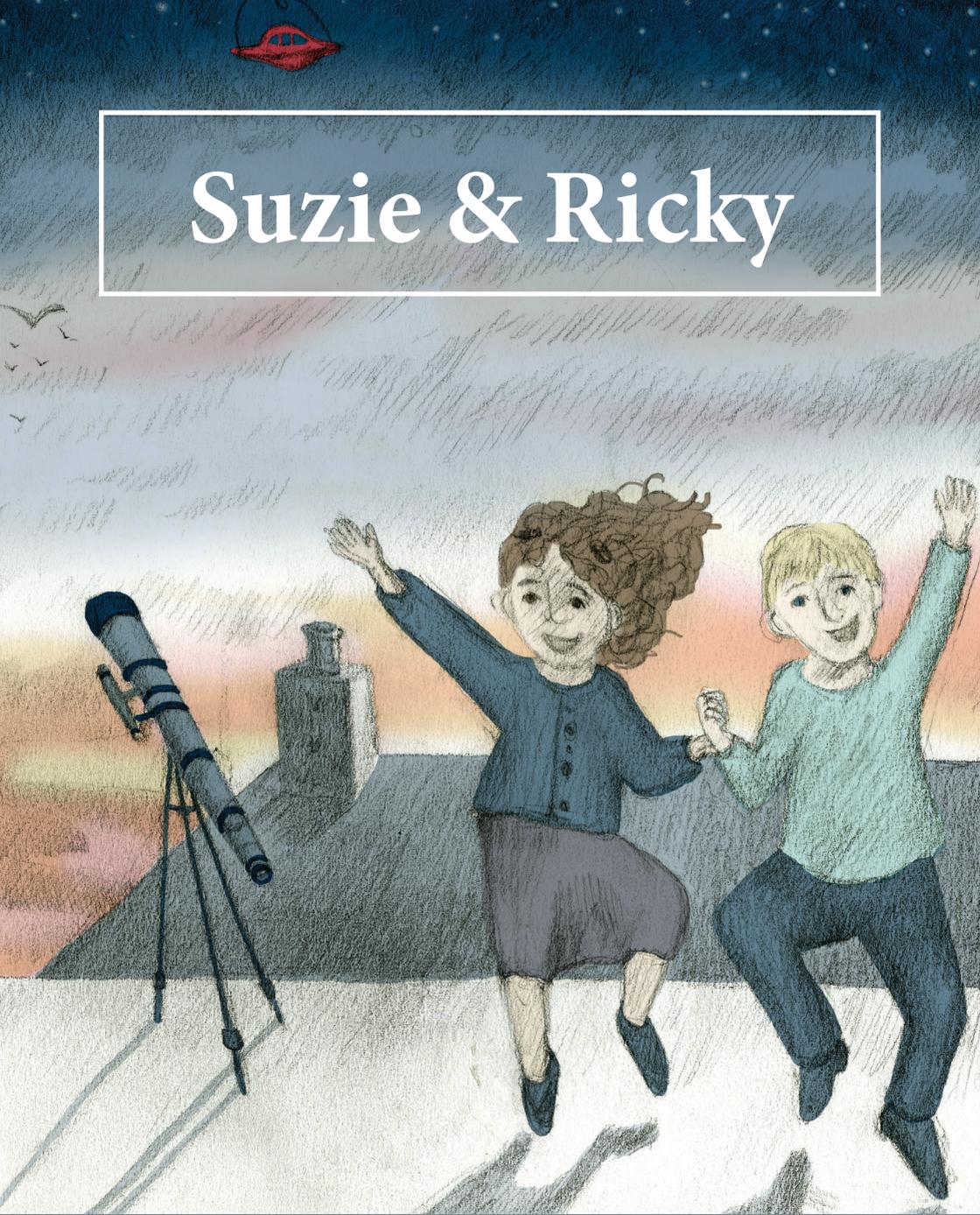




Suzie & Ricky



The illustration shows two children, a girl with curly brown hair and a boy with blonde hair, dancing joyfully on a rooftop. The girl is wearing a dark blue cardigan and a purple skirt, while the boy is wearing a light green long-sleeved shirt and dark pants. They are holding hands and have their arms raised. To the left, a large telescope is mounted on a tripod. In the background, there is a chimney and a sunset sky with birds flying. The overall style is a soft, textured illustration.

The Crash Landing

For the children who are inspired by
this book to study STEM (Science,
Technology, Engineering and Maths)
subjects, and to the scientists and
engineers who set the example they
aspire to become.

This book was brought to you by the Women in Engineering
Student Society from the University of Sheffield.

For more information please visit:

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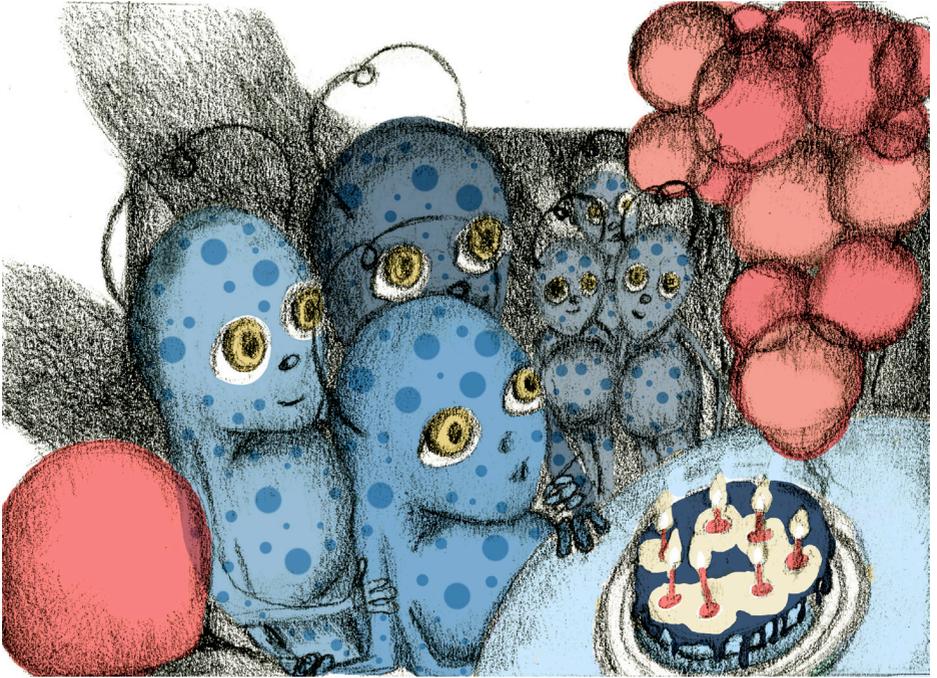
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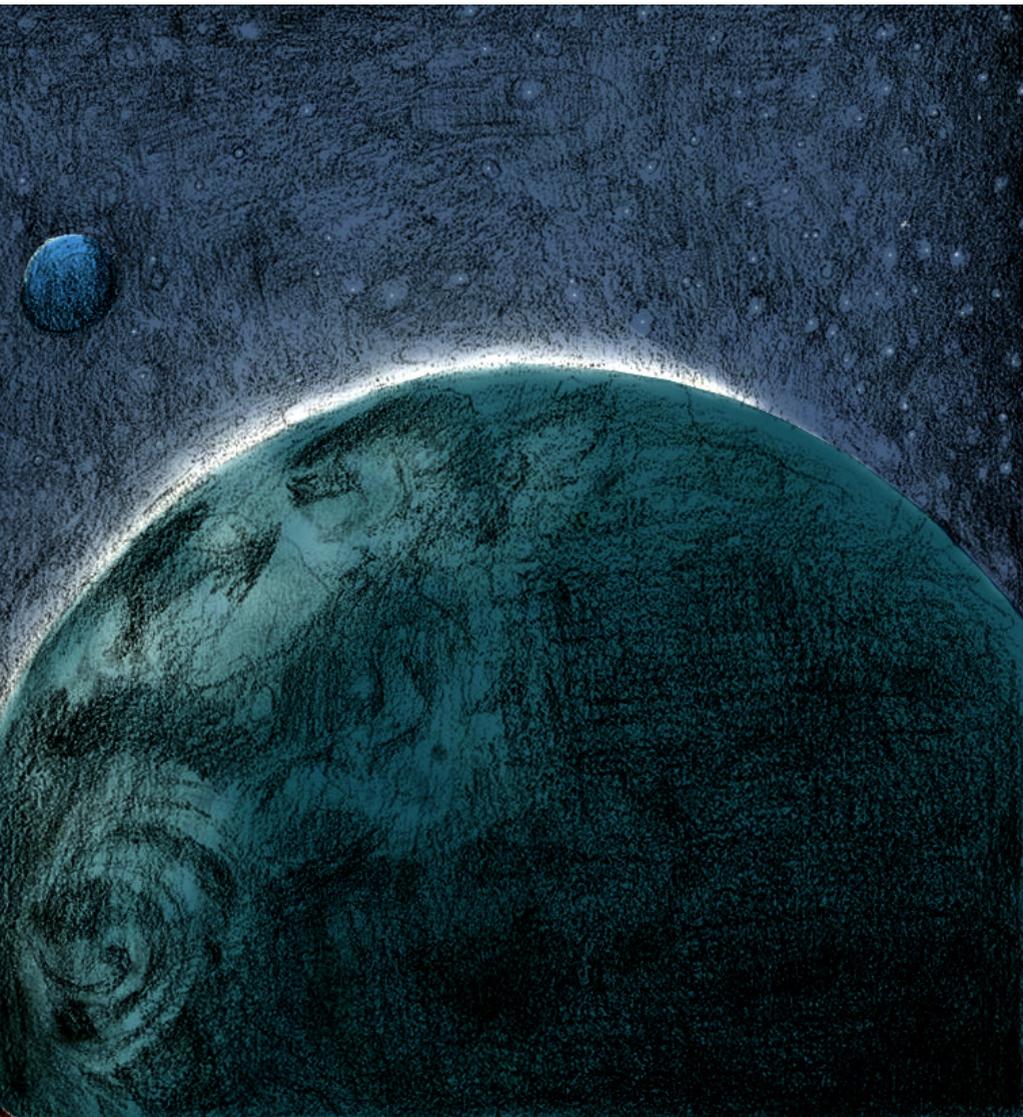
Suzie & Ricky

The Crash Landing









Chapter 1

The Crash

“BOOM! CRASH! SDONK! SDENG!”

Suzie was startled by the loud noise in her back garden. She was sleeping happily and dreaming about the exciting school trip that she was going on in a matter of hours, when a loud noise woke her up. “What was that?” she asked herself, sinking deeper into her bed and covering her head with her galaxy-themed duvet. “There is nothing out there. It’s just my imagination,” she told herself while gently easing the covers away from her face. She looked towards the window in her room that overlooked the garden and behind the drawn curtains she could glimpse some intermittent flickering lights.

“I can’t resist. This *needs* investigating!” Jumping out of bed, Suzie grabbed her jacket, pulled on a pair of flower-patterned wellies, hugged Bernard the bear - Bernie for short - and armed herself

with her trustworthy torch. Decisively she whispered to Bernie, “Shh...We don’t want to wake Mum and Dad, so be extremely quiet!” Then she tiptoed softly downstairs.

The sun was rising slowly over the horizon and the light rays were shining onto the garden dew, creating a rainbow of colours across the green grass. Everything was still with no stir in the air. When Suzie stepped over the garden threshold, she held her breath - “GASP!” - she dropped everything she was carrying onto the ground.

There, standing not so proudly after the crash landing was a small spaceship, surrounded by the various knickknacks that had broken off it. Suzie gathered her courage and stepped closer to the object. She couldn’t contain her excitement, but she was worried, scared and nervous at the same time. “A spaceship in my back garden!” she exclaimed and then hushed herself. So many thoughts were rushing through her mind. “This is incredible! Oh my, maybe it came from NASA, or someone is playing a practical joke... or maybe it’s an alien spaceship... But where is the pilot? It could be a child-eating, brain-snatching, teddy-stealing monster!”

She instinctively picked Bernie up off the floor and clutched him tightly to her chest.

There was not much time for her to speculate, when a small blue, rubber looking head with two big eyes, and six arms popped up from behind the vehicle. Suzie gasped again and hid her face behind Bernie.



“I can’t believe my eyes! You’re an alien!” she yelled at the top of her voice.

The alien was a little creature who was shorter than Suzie (who was not that tall for an 8-going-on-9-year-old). The alien was taken aback, stepped backwards, tripped, then fell on his bottom and started whimpering.

“You don’t look like a child-eating, brain-snatching, teddy-stealing monster,” Suzie said as she leaned in closer to the alien. “You look more like a child...like me!” Reaching out to hold his blue, four-fingered little hand, she asked “What’s wrong? Why are you crying? Where do you come from? My name is Suzie,” she said pointing at her herself. “What’s your name?”

By this time, the little alien had stopped crying. Suzie watched as this little pudgy, blue-coloured, freckled looking creature with wide, curious eyes pointed at itself, then to the rocket and up to the sky. Then it spoke. “ΔЖ//>>_O” it said.

Suzie scratched her head and said “I’m sorry, but I don’t understand you.”

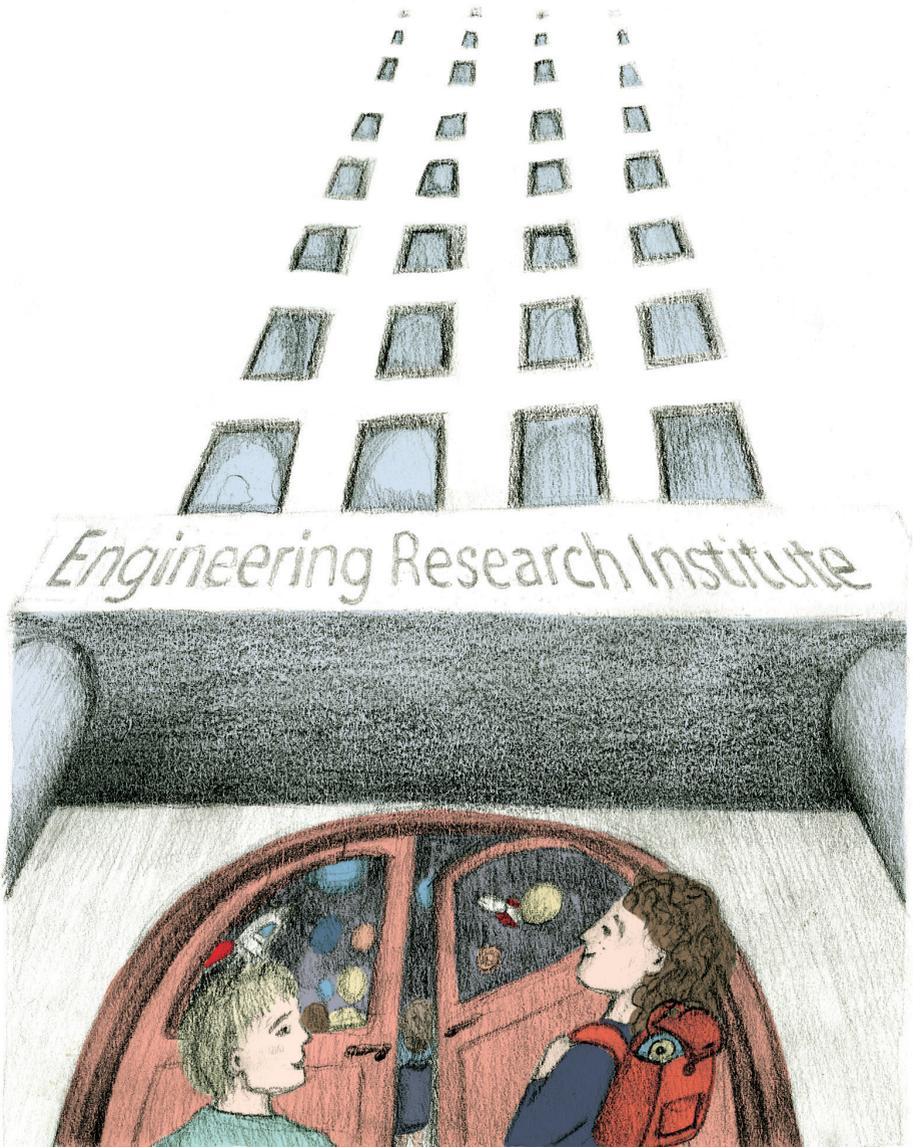
Suddenly, realisation dawned on Suzie that it was already morning and she had to get ready to go on the school trip! She looked at the alien and said, “You will have to come with me.” She clasped his hand into hers and rushed him upstairs to her room. “We are going to go to the Engineering Research Institute today. I cannot leave you here. Let’s see, where can I hide you...” Her eyes were drawn to her backpack. “That will do!” she exclaimed.

Chapter 2

The E. R. I.

When Suzie arrived at school the whole class was quickly registered and then led to the bus waiting outside the school entrance. Ricky, Suzie's best friend, managed to get on the bus first and save her a seat, which was lucky because Suzie was slowed down by the weight of her backpack. Before anyone could suspect anything, she placed her very heavy and bulging backpack under her seat. No noise came from her bag for the whole 40-minute bus journey, so she guessed the alien was probably as tired as she was and was trying to sleep.

Soon the bus pulled in at the huge building where they would be spending the rest of the day. It was at least seven stories high with a huge sign saying 'Engineering Research Institute' in big, silver letters on the front. Suzie, Ricky and the rest of their class were guided through the shiny, marble entrance of the Engineering



Research Institute (or E.R.I. for short) and into a large, empty room. The class was silent for the first time in a long while as they

took in their surroundings. Tiny model spaceships hung from the ceiling as if they were really flying. The walls were covered with brightly coloured pictures and maths equations that looked more like Egyptian hieroglyphics than numbers. At the front of the room stood a young man with jet-black hair, tied into a ponytail and glasses that kept falling off the end of his nose. He was wearing a white lab coat with some funny-coloured stains and proceeded to welcome the class:

“Welcome to the Engineering Research Institute. My name is Bruce and I’m a bioengineer.”

The class began to whisper excitedly because no one had heard of a bioengineer before. The noise seemed to wake up the alien, because Suzie felt her backpack begin to move. “Hopefully no one will notice,” she thought, “especially not Bruce!”

Bruce cleared his throat to hush the class. “I am here today to tell you a little bit about what we do here at E.R.I. and if you’re REALLY well behaved I may even show you some of our latest inventions. For those of you who don’t know, a bioengineer is a

type of engineer who uses Science and Maths to make anything from false legs to human skin. At the moment I am hoping to make skin which can be used to heal any animal or human, If only I could find a volunteer to trial my invention on.”

Now, Suzie’s bag was more than just rustling, the alien began to make some strange noises. “Meeep... yeaww...” came the muffled noises from within her bag.

“Are you feeling alright, Suzie?” whispered Ricky. She had been acting very strangely all morning so he thought that she was probably not feeling very well. He wished she would be quiet so that Bruce would show the class his inventions, because Ricky had always loved science and doing experiments.

Suzie attempted to cover the strange noises with some even stranger coughing. “I’m fine thank you. I’ve just got a bit of a cough that’s all,” she spluttered.

Bruce shot Suzie and Ricky a warning look, then pushed up his glasses for the fourth time and pointed towards one of the brightest pictures on the wall. “This picture was taken using my

favourite microscope. It is so powerful that I can use it to see inside a cell. A cell is like a tiny person with its own special organs which are called 'organelles'. A living person like you or me is made up of 100 trillion cells!" Pointing at the ceiling Bruce continued, "I am probably not the best person to explain our spaceship models but I have some friends here at E.R.I. who know all about them and will show you some of their exciting new inventions very soon."

Suzie could feel her face getting redder and redder as the contents of her bag began to jump up and down on her back. This time Ricky was not fooled by Suzie's coughs, he tugged at the zip of the backpack - and out popped something he never expected. A small blue arm covered in blue spots pulled itself out of the bag along with the rest of its slimy body.

Before anybody saw, Suzie grabbed the alien and pushed it back into the bag again.

"What on earth is that, Suzie?!" gasped Ricky, wide-eyed with shock.

"That's the problem," she replied, "I don't think it is from Earth."

Chapter 3

Bruce's Office

Whilst Bruce continued giving his talk, Ricky pointed to a door marked 'STAFF ONLY' and whispered to Suzie. "Let's go in there so you can tell me where you found that!" Suzie thought this was a very good idea. She could tell Ricky all about the alien landing in her garden without any of their teachers eavesdropping, because they were all too busy listening to Bruce's talk.

They tiptoed through the door and found themselves in a very long corridor, with offices on either side, and pictures all along the walls of scientists in their white lab coats holding awards, rockets in space, and even a picture of a dog in a rocket - but that photo looked very old since it was in black and white.

Suzie told Ricky about her very odd morning finding the alien and how it had crashed. But before she could tell him about hiding the alien in her backpack, they heard someone coming through the

door. Both Suzie and Ricky tried the office doors behind them. The door Ricky tried to open was locked. Suzie's was unlocked. So they both ran through Suzie's door into the office and closed the door.

Inside, there were hundreds and hundreds and hundreds of books on all of the walls, except for the one opposite the door, as that wall had windows instead. There were also lots of certificates hanging by the windows, but before Suzie could read them she heard voices outside the office.

“Quick! Under the desk!” shouted Suzie in a whisper to Ricky, who looked as scared as Suzie felt. They scrambled towards the desk, trying not to trip on the mountains of paper on the floor, and just got underneath when they heard the door open.

Suzie signaled to Ricky to be very quiet by holding a finger to her lips. They both held their breath. Suzie was holding her backpack so tightly that she thought she might hurt the little alien, but she was so scared of being caught and getting into trouble that she hoped the alien would take it as a sign to keep quiet.



Suddenly, the alien started whining really loudly in a way that resembled crying, like when Suzie couldn't find Bernie before bed.

“MYEHH...MYEHH...MYEHHHH...” cried the alien.

Before they could get the alien to be quiet, the feet that had entered the room stopped moving and turned so that they were pointing towards Suzie and Ricky. The pair of them froze.

“What are you two doing in here? Have you lost the group?” asked the face looking wonderingly at Suzie and Ricky. They crawled out from under the desk and stared at the man talking to them. Suzie thought it was Bruce the bioengineer who had been giving them the talk earlier, but she wasn’t completely sure.

“We...um...got lost,” said Suzie while trying to hide her backpack behind her.

“Okay. What are your names?” asked Bruce (Suzie was sure it was Bruce now), “and what is that noise coming from your bag? You’re not allowed to bring animals in here.” She’d been so scared about being caught that Suzie had completely tuned out the crying alien, though now it was making more of a whimpering ‘meeep nyaaaaaw’ noise.

“I’m Suzie. This is my best friend Ricky and the noise is...it’s...um...well...it’s not an animal...I don’t think...” Suzie trailed off, not quite sure how to explain to Bruce that she was hiding a six-limbed, blue, freckled alien in her backpack.

“It’s an alien Suzie found in her garden and we’d like your help,”

said Ricky much more confidently than Suzie. Although she could tell that he was just as scared as she was of how Bruce would react. He laughed.

“An alien?! Wow, I have just got to see this!” Bruce said whilst reaching for Suzie’s bag. He started opening it. Suzie held her breath again, unsure about how Bruce was going to react. When he saw the alien neither Suzie nor Ricky could tell what he was feeling. He looked amazed, excited and terrified all at the same time, which was not how they expected a grown up bioengineer to react.

“I think I have just what this little guy needs in my lab, come on you two!” And they set off down the corridor.

Chapter 4

Help!

Suzie and Ricky quickly shuffled behind Bruce as they made their way towards his lab. The last thing they wanted was to get lost. As they approached the end of the corridor they saw two enormous steel doors with no windows or door handles. “Ah! Here we are!” Bruce exclaimed cheerfully. Suzie and Ricky stood patiently in front of the huge entrance whilst Bruce tapped in a very complicated passcode and with a brisk swipe of his ID card the doors zoomed open.

Bruce nudged Suzie and Ricky inside, as the children could barely move a muscle because they were in complete awe. Inside, the lab held so many wonderful machines chugging away, and rows of tables all displaying different jars and dishes resting on them - some round, some triangles and some in large glass boxes. Suzie and Ricky could barely keep their jaws off the ground. They

dropped their bags at the door and began exploring.

Bruce turned and pointed at the tables whilst smiling from ear to ear. “This is where I grow the skin which I use to make people better. You can see some dishes are kept in those glass boxes - that’s because they keep the cells clean so that when I use them they don’t make the patient unwell,” Bruce said. Suzie walked further into the lab, closely followed by Ricky and Bruce. She peered into the machines and watched as they attached a foot to a brand new leg. She giggled, as the new leg wiggled.

“MEEEEEEEEEP.....MEEEEEEEEEP...YEAWWWW!” All three heads whipped around to stare at Suzie’s backpack. In all the excitement Suzie had completely forgotten about the alien. Bruce dashed back to the door and scooped up the bag. “Quickly!” he urged, “this way!” His voice sounding panicked as he ran through the lab. Suzie and Ricky exchanged a brief worried glance before pursuing the Bioengineer.

They came to a halt at a shallow table positioned next to a bizarre structure of metal poles and wires. Bruce gently laid the now

silent rucksack on the table and unzipped it carefully. There was no movement from within. Suzie and Ricky held their breath as Bruce reached inside to retrieve the small creature. The alien grasped Bruce's arm and crawled out of the bag before lying back down on the table, clearly worn out.

Suzie breathed a sigh a relief. "What's wrong with it?" she asked.

Bruce turned to Suzie and Ricky and pushed his glasses back up the bridge of his nose. "I assumed this alien has spent its entire life living in space, where there is zero gravity. That means now that it's on Earth it is very weak. Every time it even lifts its arm it will be as if it is lifting a piano, and it's exhausted. Luckily I have been developing a new device which should help it a lot." Bruce turned to face the metal structure. "It's called an exoskeleton. Essentially it's a robotic skeleton you wear on the outside to help you move. Every department in the E.R.I. helped to build this model. It should be adjustable to just the right size."

Suzie and Ricky helped carry the alien towards the exoskeleton and attached its arms and legs to the structure. Once secured,

Bruce reached behind the exoskeleton and flipped the switch to turn it on. The alien sprang to life, easily and swiftly moving its arms in the air. A smile spread across its small blue face whilst its antennae on top of its head began to dance. Suzie was amazed!



“Try walking,” Suzie said encouragingly and then marched on the spot to ensure it understood her. The alien gingerly took a few steps forward, before jumping up and down with glee and pacing around the lab muttering “<\\Δ”. Its antennae on the top of his head perked up and began changing shapes excitedly.

Suddenly Bruce began noisily digging through a desk drawer, throwing paper, wires and old sandwiches on the floor until he grasped what looked like an old walkie-talkie attached to a chain. “AH-HA! This should help with our small communication problem. I invented it years ago in case of an emergency,” Bruce explained as he placed the device over the aliens head and switched it on. The static noise coming from the device quickly stopped.

Suzie stepped towards the alien, clearing her throat she said, “Hello, I’m Suzie. What’s your name?” The alien looked at Suzie with its big yellow eyes and replied, “My name is Mike. Can you help me please? I want to go home.” Suzie, Ricky and Bruce stared stunned at Mike. Then Bruce burst out, “Of course! Let’s go and find the other engineers. They are not going to believe this.”

Chapter 5

The Engineering Team

Suzie, Ricky and Mike followed Bruce the bioengineer through a series of winding corridors decorated with colourful posters full of interesting pictures and diagrams. Bruce was on his mobile phone calling some engineers as they walked. Finally they reached a large door that led into a room centred in the heart of the Institute. Suzie and Ricky were shocked and could not believe their eyes. The room was an enormous workshop with tall, wide glass windows. There were various sections around the room that had many different kinds of machines and unusual objects that they had never seen before. Suzie and Ricky wondered how they were going to get Mike home, but something told them that they were definitely in the right place to find help. Circling around a large table was a team of engineers that Bruce had gathered together.

Suzie and Ricky could feel the excitement coming from the engineers as they were talking to one another. Bruce adjusted his glasses, quietened the room and then announced, “Suzie. Ricky. Mike. I would like to introduce you to your very own team of engineers that want to help build a rocket for you. Rockets are complex because they have lots of rare parts that need to be specially designed and manufactured. Each engineer has unique skills to contribute to the team by making these special parts.” He turned and extended his hand towards the team saying “Team, why don’t you introduce yourself. Tell us what type of engineer you are and explain what part of the rocket you will be making.”

The woman wearing a red dress stood up and said, “It’s a pleasure to meet you all. I am Anna and I’m an aerospace engineer. I am in charge of the team for this project. I’m in charge of constructing the rocket and making sure we have everything it needs to work.” Anna the Aerospace engineer sat down.

The man with the moustache next to her waved and said, “My name is Matthew and I’m a materials engineer. I am going to design and build the rocket parts using special materials that are

strong enough to go into space.”

Then the woman with red hair smiled at them and said, “You can call me Chloe. I am a chemical engineer. I will develop the fuel system to generate energy to power the rocket.”

“Hey! Please call me Ed,” said the man with the blue t-shirt. “I’m an electrical engineer. I will make sure all the parts can connect to each other, including the radio so we can communicate with Mike when he’s in the rocket.”

Lastly the final team member introduced herself. “Hi! I’m Molly and I am a mechanical engineer. I will be making the powerful engine to launch the rocket into space.”

Anna the Aerospace engineer turned towards them and said, “We want to help you. We are really excited about building your rocket! We have already had some ideas that we are going to work on straight away. In the meantime you can all have lunch with Bruce in the room up there.” Anna pointed to a room on one of the top floors which had a big window overlooking the workshop. “You will be able to watch us build the rocket while you eat. We



will work as fast as we can,” promised Anna.

Mike let out a sigh of relief and smiled back at everyone as his antennae beamed. “Thank you for your help,” he replied. Suddenly Mike’s tummy made a loud gurgling noise as he looked at his belly. “I’m glad you mentioned lunch because I’m starving!” Everyone laughed.

Chapter 6

Mike's Tale

Suzie, Ricky and Mike were filled with excitement, anticipation, and relief because the Engineering team were able to help Mike. As their tummies rumbled with a sudden hunger, they skipped eagerly behind Bruce. He led them out of the room into a glass elevator that was illuminated by a blue light with one of its walls surrounded by funky-coloured buttons. “Phew. All this excitement has made us hungry, don’t you think?” chuckled Bruce as he lay his finger on a purple button. “Luckily for everyone, the E.R.I. is not only well-equipped with state-of-the-art tools and machines but also spectacular dining areas with delicious food to eat. “Oh, here we are!” The doors of the glass elevator slid open with a ‘ding!’ as its occupants stepped out.

Suzie, Ricky and Mike looked around wide-eyed, salivating at the variety of food on the counters that greeted them with

wondrous smells. There was a lovely spread of sandwiches, salads, burgers, baked pasta, fresh fruits, cakes and lots more. “I’ve never tried human food before!” said Mike, jumping up and down enthusiastically as his antennae began flickering into different shapes again. “I’d like to try it all!”

“Please do Mike!” laughed Bruce the bioengineer. “Don’t feel shy to help yourselves too, Suzie and Ricky.”

“Thank you Bruce!” they said in unison. The four of them then sat down at a table with cosy seats, where they had a nice view of the other engineers working merrily to build the rocket. As they wolfed down their food (except for Mike, who was looking curiously at the cheesy pasta, wondering why it was so gooey) Suzie turned to Mike and said, “Please tell us. What happened to you?”

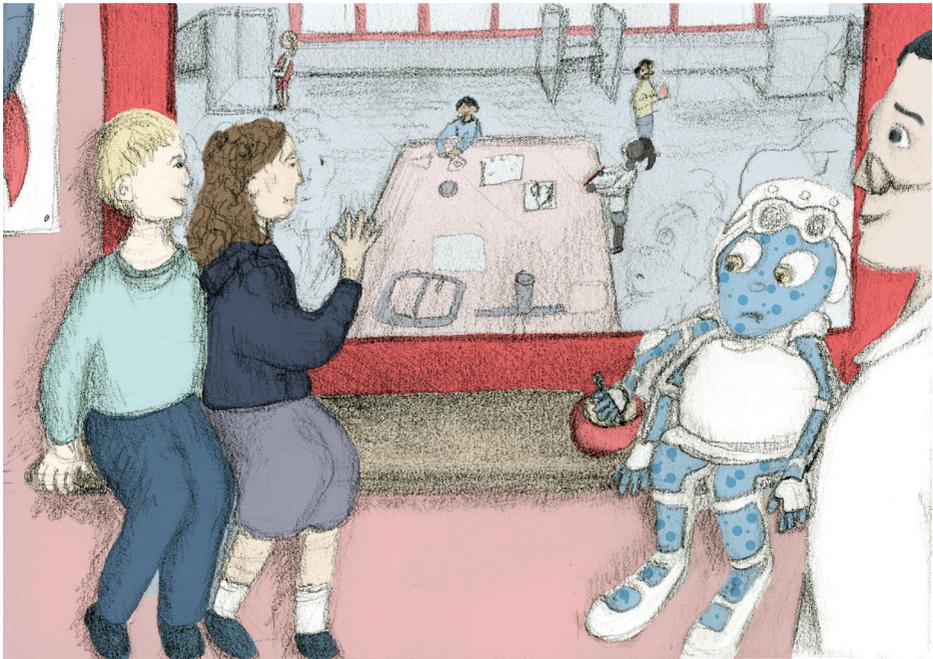
“Yes. How did you get here?” Ricky added.

Mike looked at the three of them and sighed. As he thought back, his antennae began to pulsate slowly. “I was actually at my birthday party,” he said, deciding he didn’t like the strange, sticky yellow

gooey pasta. Then he picked up a lettuce leaf from the salad and started sniffing it.

“Oh! It was your birthday yesterday! Happy belated birthday Mike!” Suzie exclaimed, as both she and Ricky got up to give him a hug.

Mike smiled widely as his antennae began to beam again. “Everybody was there including my Mummy, Daddy, grandparents, aunties, uncles, cousins, and my friends. After we cut the cake and sang the birthday song, my friends and I decided



to have a game of hide-and-seek. It's my all-time favourite game! I was determined to find a perfect hiding place and there it was. It seemed to be a spacecraft like the ones Mummy and Daddy have but this was much, much smaller, and small enough to fit in our living room. So I hid inside," he continued, as he started on his second slice of chocolate cake.

Bruce snapped his fingers and nodded, "That must have been some kind of emergency escape pod."

"Yes. The next thing I knew I was flying in it and everything happened so quickly I didn't have time to try and figure out how to fly it. Then I crashed in your garden, Suzie." Mike's antennae started drooping sadly. "It is very nice to meet you all but I really must get home quickly. My family and friends will be very worried about me."

Suzie and Ricky patted him on the back kindly. "Well Mike, I believe you don't have long to wait," said Bruce as he smiled down at the Engineering Team who were furiously waving at them from their workshop below - looking sweaty, but satisfied.

Chapter 7

The Big Reveal

“GO! GO! GO!” shouted Anna when she saw Bruce and the children move from the window to head down to the workshop. Instantly everyone leaped into action. They all rushed to set up a surprise leaving party for Mike, which had been Ed’s idea. Chloe and Matthew were blowing up loads of balloons while Molly set up the speakers for music and Ed dashed to his office to find his instant Polaroid camera. Suddenly Anna had an idea. She had party poppers somewhere! “Quick guys! They’ll be in the lift by now!” shouted Anna urgently as she sprinted over to her office. Rummaging through all her drawers she finally laid hands on the party poppers and ran as fast as she could back to the others. As she burst in she was relieved to see that everything was ready.

“Quick guys - by the door!”

Anna hurried to hand out party poppers to everyone and in no

time they could hear Bruce's voice approaching the workshop. The engineering team all stood quietly, armed with party poppers. As Mike and the children walked through the door they all pulled the party poppers and yelled "SURPRISE!!"

"Wow!!" Suzie Ricky and Mike cried in unison. Mike's antennae was glowing and pulsating in shock. "A party! What a great idea!" cried Suzie as she clapped her hands excitedly.

"Good job guys!" added Bruce. "Everybody grab a drink for the unveiling!" They all huddled excitedly at the foot of the rocket.



“Wooooow!” said Suzie, Ricky and Mike in awe as they looked up at the great structure covered in a cloth. It was HUGE! Suddenly the cloth started to move to reveal the shiny structure underneath.

“Ta-da!” shouted Anna as she threw the cloth to one side. Everyone stood in stunned silence. It was amazing!

“You did it!” cried Mike “I can’t believe you did it!” Mike’s antenna began to glow again and was dancing in different shapes.

The Engineers were all very proud and all started cheering. “To Mike!” toasted Bruce.

“To Mike!” shouted everyone in reply as they raised their glasses.

“Now let’s celebrate!” exclaimed Chloe.

All the engineers were glad to see the children and Mike were enjoying the party. Matthew made sure to get pictures of Suzie, Ricky and Mike so they would never forget their day together, including a great shot of the three of them in front of the rocket. Suzie saw how good the photo was and had an idea! She grabbed a nearby balloon and asked Matthew if she could have the photo



and a pen. Seeing Suzie's big smile he could not refuse. Then Suzie crept away.

"Psst!" she whispered, "Ricky!" Ricky looked around and was very confused when he saw no-one around him who had whispered his name. "Over here," whispered Suzie.

At this Ricky craned his neck to see that there, behind the rocket was Suzie. "Suzie!" he cried, "What on earth are you doing?!"

"Shhhh! You'll ruin the surprise!" said Suzie. "Come over here! Quick!" she added. Finally Ricky caught on and sneaked over to behind the rocket.

"It's a goodbye note to Mike," explained Suzie and held out the pen and photo towards Ricky. He signed his name and went to hand it back to her but she pushed his hand away. "I thought we could hide it in the rocket, but I need you to do it as they might start wondering where I've gone in a minute."

"Okay" said Ricky nervously.

"Don't worry - I'll create a distraction for you" Suzie reassured

him as she ran out the door.

Seconds later she reappeared, through a door on the other side of the room. Walking across towards Mike, Suzie suddenly fell over! “Owww!” she shouted.

When everyone looked over at this Ricky darted inside the rocket and tied the balloon to the leg of the console so it would not fly away. Next he peeped out of the doorway and was relieved to see everyone still gathered round Suzie. The coast was clear! He ran and hurried across to Suzie. He winked at her to signal he had succeeded.

“No, I don’t think it is sprained,” Ricky caught Chloe saying as he got closer.

“Are you okay Suzie?” asked Ricky.

“Yes, she’ll be fine. Don’t worry” said Bruce.

“Yes it feels a lot better now!” added Suzie as she went to get up.

“Oh good!” said Ricky. “Let’s get some more cake!”

Chapter 8

The Launch

Bruce turned to Mike. “You should probably get going soon. Your parents must be so worried.”

“Yes, I guess I had better go,” said Mike looking sadly towards Ricky and Suzie.

“Don’t worry Mike” said Ricky. “We’ll never forget you!”

As Matthew guided them all towards the rocket entrance everyone said goodbye to Mike and gave him a big hug. Then finally Suzie and Ricky both gave him a group hug just before Mike got into his new rocket.

“Ricky’s right you know” whispered Suzie to Mike whilst hugging him, “we won’t ever forget you.” Mike’s antenna beamed.

After a long hug Ricky and Suzie stepped away, and Mike moved

up the ramp towards his brand new rocket.

“Remember to put on your seatbelt,” said Chloe.

“And don’t forget the instructions I gave you earlier,” said Anna.

“Just push the big red button and use the lever to gain height.”

“Once you’re in the air just select autopilot,” added Ed.

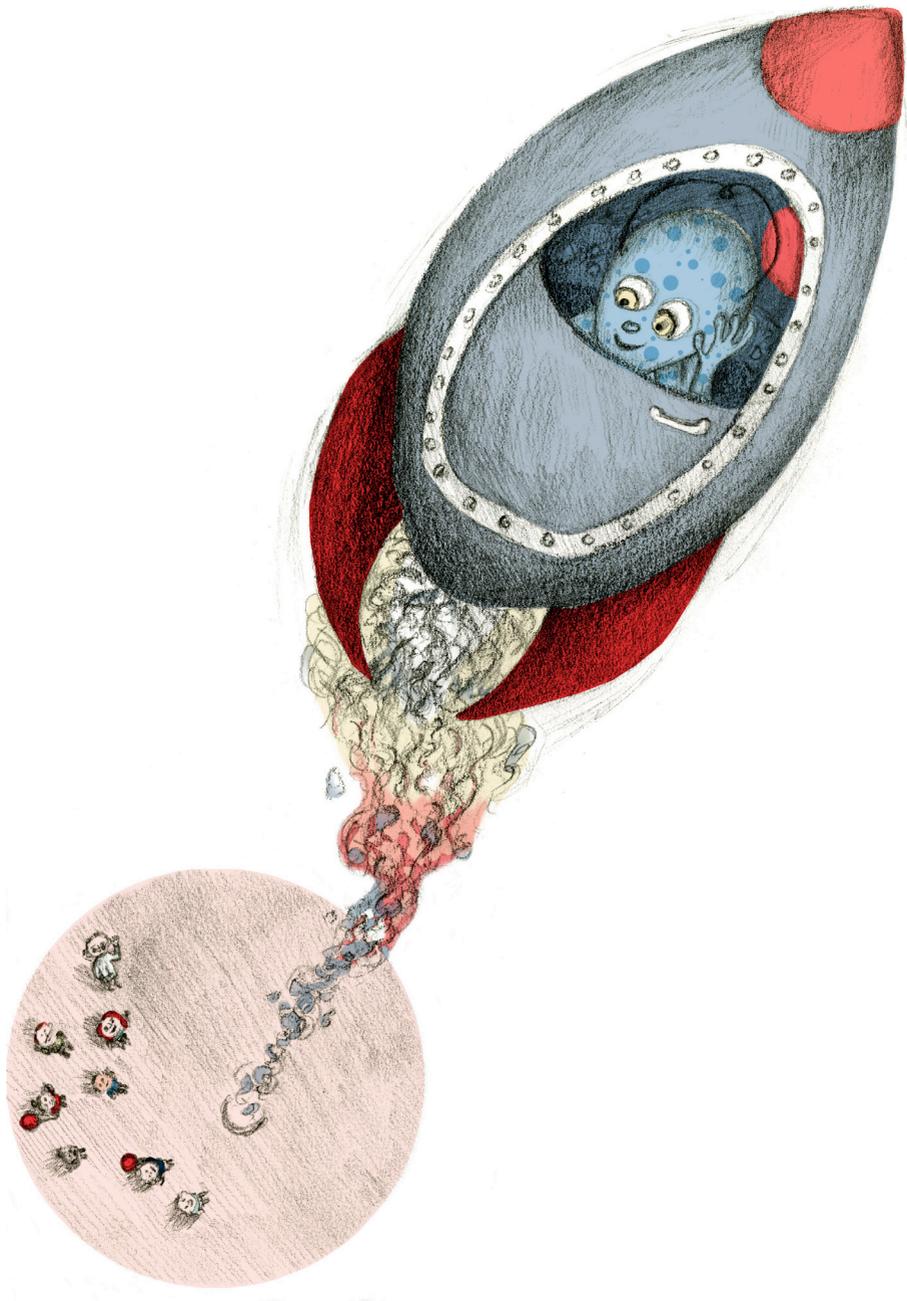
“And don’t touch the destination co-ordinates!” said Molly. “They should take you straight to your spaceship.”

“Don’t worry - I will remember,” replied Mike.

Climbing into his new rocket, Mike knew he would never be able to thank these people enough. They had helped him find a way home. He was thankful for Suzie most, the girl who had made all of this possible. He was really going to miss Suzie and Ricky, his new earthling friends.

”/ЖО!” he shouted as the door to the rocket started to close.

“Goodbye!” everyone shouted back.



Over the intercom they could hear an automated voice and see the countdown on-screen. “3...2...1...BLAST OFF!” Suzie and Ricky watched in awe as the rocket flew up into the sky. They had never seen anything like it. It was amazing!

As they watched the rocket moving away they knew their school bus would be leaving soon. They both thanked all the engineers for helping them and throwing a party too. Suzie and Ricky took one last look around the room and knew they would miss their new engineering friends too as they dashed towards their bus.

Meanwhile, Mike was feeling quite sad as he thought about how he would never see Ricky or Suzie again. All of a sudden he spotted something moving out of the corner of his eye. He put the rocket into autopilot as Ed instructed. Then he went to investigate. He found it was one of the balloons from the party! When he picked it up he found a picture was stuck to it. It was a photograph of him, Suzie and Ricky! He smiled broadly as his antennae glowed and pulsed with joy. Even though he might not see them again he would always have this picture to remember his earth adventure. He turned the picture over and saw the message his Earth friends

had written. He sat back in his chair to read it as he made his way home sailing through the stars in space.



Chapter 9

The Best Day Ever

With Mike on his way home aboard that magnificent rocket, Suzie and Ricky felt a pang in their hearts.

“I wonder where Mike is right now, Suzie?”

“Let’s find out! I have a telescope at home!”

The minute the bus stopped at the school gates and opened its doors Ricky and Suzie jumped out and started rushing towards her house.

Suzie flung the door open and was about to run upstairs, when her mother caught them. “Honey! Welcome back. What is all this rush? Aren’t you going to tell me about the school trip?” Ricky and Suzie were so full of excitement that they couldn’t contain their eagerness to share this mind-blowing day. Ricky and Suzie stopped. They took a deep breath. Then they recounted their

whole adventure from the very start to the very end. "...It was the best day of our lives!" they concluded in unison.

"What an incredible story! I was wondering what the mess in the garden was all about... Well what are you waiting for! It's getting dark so we may be able to use our telescope on the roof to see where Mike is!" said Suzie's Mum.

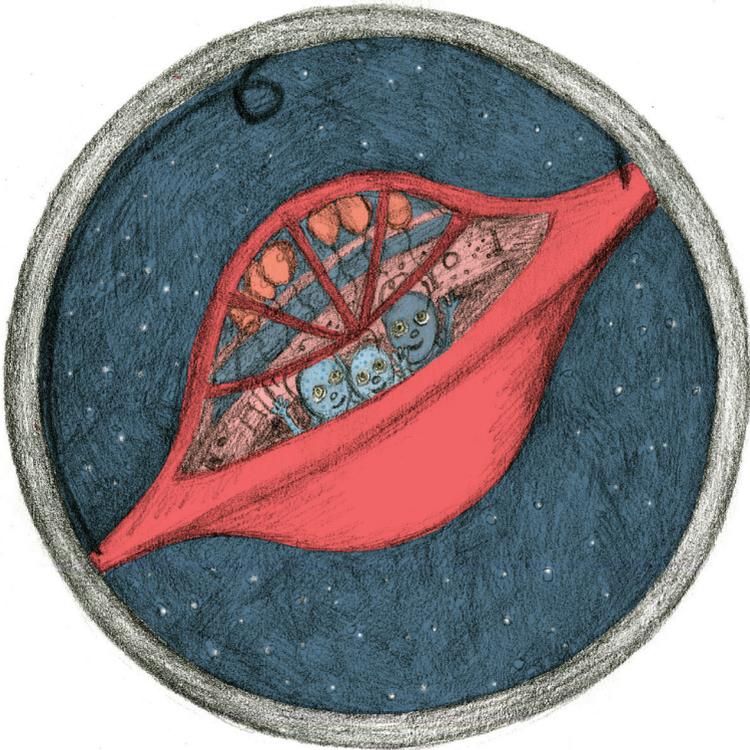
Suzie and Ricky raced upstairs to the roof, and Suzie's Mum followed.

"First things first" she continued, "I would need to get the co-ordinates of where your friend is. The universe is vast and many satellites orbit the Earth. In the solar system there are also planets, stars and meteorites whizzing in and out of the galaxy to take into consideration."

"Here, Mum," Suzie said as she handed her a small piece of paper. "Bruce the Bioengineer said we might need this." There on the piece of paper were the co-ordinates to track Mike. "OK! We are all set. Let's head upstairs and give it a try."

Ascending the stairs to the rooftop made their hearts race and their palms sweat. They were thrilled and nervous at the same time. A heap of emotions were welling up inside them. What if they could not see Mike? Then they would never know what happened to him!

‘Take a look honey,’ said Suzie’s mum with a smile on her face. Suzie tentatively placed her eye on the eyepiece and exclaimed “Oh, Mum, I can see him!”



Looking through the telescope, Suzie made a sudden decision. “I am going to visit Mike and his family!” she cried out to everyone’s astonishment.

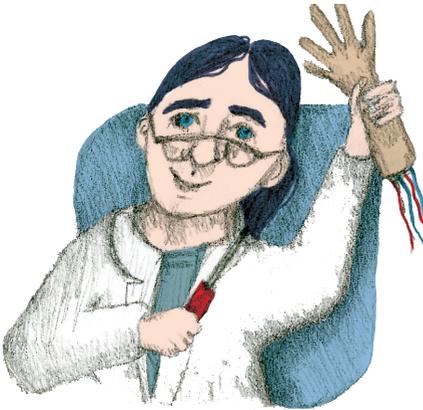
“Yes! I’ll come too!” exclaimed Ricky.

They looked at each other and shouted at the top of their lungs, **“We will become engineers!”**

That same night, Suzie was back under her galaxy-themed duvet where it all began. She kept her curtains open so she could look up into the stars. “I wish I could speak with you, Mike,” she whispered as she was falling asleep. “One day we *will* meet again.”



Engineer Profiles



Bruce the Bioengineer (Sheffield, UK)

Job: Creating devices and engineering tissues to benefit the medical field.

Research Area: Designing exoskeletons and growing skin.

Past Projects: Making an insulin pump to continuously treat diabetics.

A Levels: Biology, Physics and Maths

Hobbies: Rock climbing and football

Pets: 4 Goldfish – Buster, Bertie, Betty and Boo

Favourite Childhood Toy: Board games

Molly the Mechanical Engineer (Nairobi, Kenya)

Job: To research, design and evaluate machines, devices, equipment and systems, which overlaps with many other forms engineering.

Research Area: The development of new areas of energy production by researching the use of water turbines under the sea.

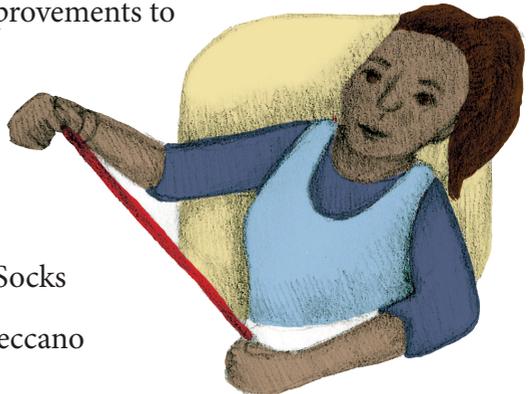
Past projects: Robotics projects, development of diggers and brake pads for cars, and making improvements to manufacturing processes.

A Levels: Maths, Physics and Chemistry

Hobbies: Going to the zoo, photography and gardening

Pets: 2 rabbits - Bubble and Socks

Favourite Childhood Toy: Meccano



Find out more at www.EngineeringIs.co.uk

Anna the Aerospace Engineer (Boston, USA)

Job: To research, design, develop, maintain, monitor and test the performance of aircraft, missiles, satellites and space vehicles.

Research Area: Space flight simulation analysis.

Past Projects: Developing the safety features in new aircrafts and systems in space shuttles.

A Levels: Maths, Physics and Chemistry

Hobbies: Running, travelling and eating

Pets: 2 tabby cats named after astronauts, Buzz Aldrin and Neil Armstrong

Favourite Childhood Toy: Barbie



Ed the Electrical Engineer (Shanghai, China)

Job: To design electronic circuits, electrical components, devices and systems.

Research Area: Development of waste electrical and electronic equipment.

Past Projects: Consultant for wireless communication, automatic solar tracking control, and development of a robotic arm.

A Levels: Maths, Physics and Chemistry

Hobbies: Collecting and building quadcopters

Pets: Ashley the hamster

Favourite Childhood Toy: Quadcopters

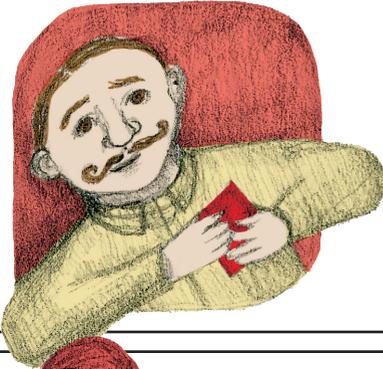


Matthew the Materials Engineer (Paris, France)

Job: To understand the properties of materials and researching, defining, designing and developing new materials.

Research Area: New biomaterials that may be able to monitor the human body to detect illness.

Past Projects: Produced new materials for space shuttles, biomedical implants and the automotive industry.



A Levels: Maths, Physics and Chemistry

Hobbies: Swimming, watching cricket and painting

Pets: Turtle called Jean Paul

Favourite Childhood Toy: Lego



Chloe the Chemical Engineer (Sydney, Australia)

Job: Designing and developing processes to turn raw materials into products.

Research Area: Developing new methods for safe nuclear energy production.

Past Projects: Manufacturing new pharmaceutical products, and making biodegradable plastic packaging.

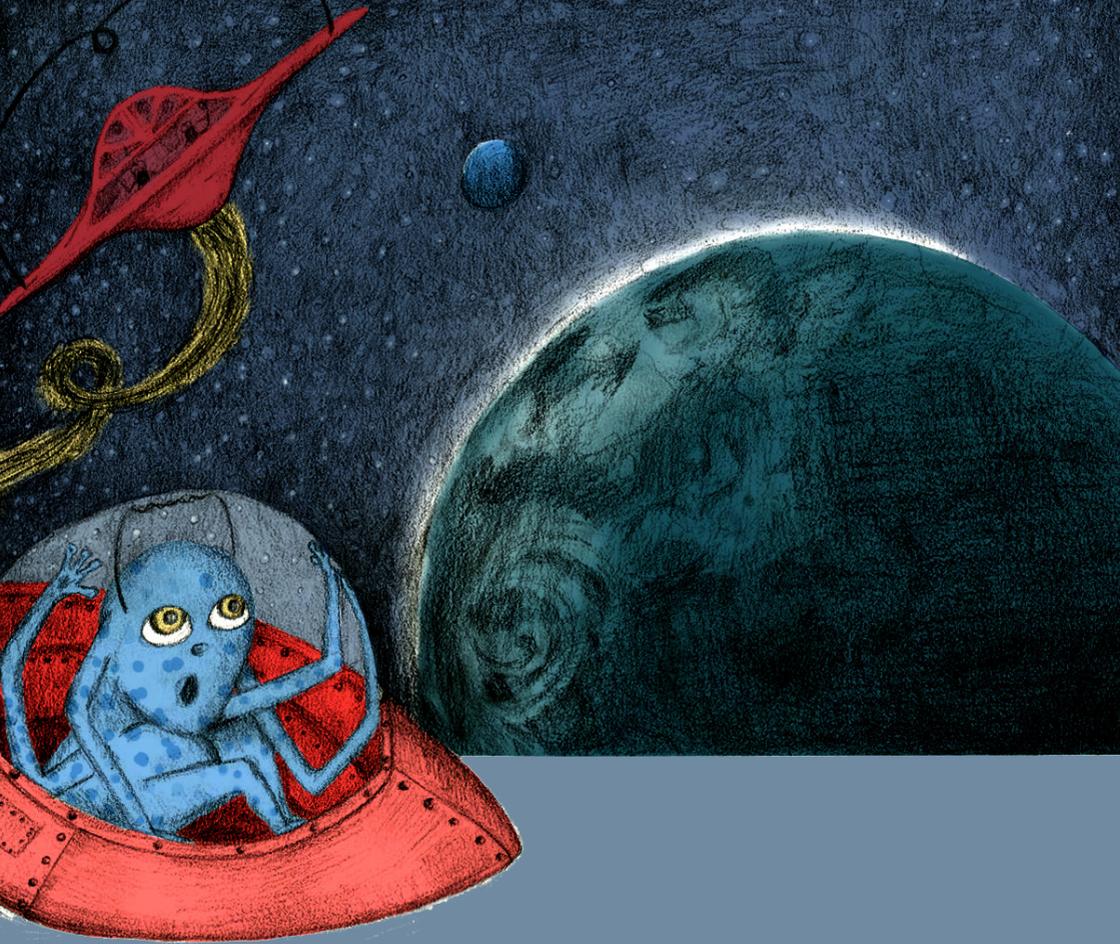
A Levels: Biology, Chemistry and Maths

Hobbies: Surfing, playing the sax, road-trippin', and volunteering

Pets: Aria (collie dog), Pokey (hedgehog), Albert (tortoise)

Favourite Childhood Toy: Playstation

**What kind
of Engineer
will *you* be?**



Suzie and Ricky thought the school trip to the Engineering Research Institute was going to be interesting enough. Little did they know how extraordinary their day would really be after Suzie discovers something out of this world...
in her back garden!

**Join Suzie and Ricky as they work together
to help their new friend find a way home.**



Women *in* ———
Engineering



The
University
Of
Sheffield.