## Luis and the SnakeBot

It was finally the last day of school. Luis couldn't wait for the finishing bell to ring – six weeks of summer awaited him and he already had plenty of plans; swimming, scootering and best of all, playing with his friends everyday. He was going to Jessie's house for tea tonight and was already excited. Jessie had a lovely, wrinkly dog called Clucky who could catch a ball in his mouth and everything.

Luis looked at the clock in his classroom. One o'clock already, only two and a half hours until home time. In a bid to make time go even faster, Luis set his mind to the workbook in front of him. His favourite, maths. He decided to set himself a challenge and time how quickly he could complete it. He started the countdown; 3, 2, 1...GO! Seven minutes later, workbook finished. He raised his hand proudly in the air.

"What is it Luis? Are you stuck?" Mrs Watkin asked when she saw Luis's hand waiting patiently in the air.

"No, Miss, I've finished."

"Just move onto the next page, Luis."

"But I've finished the workbook, Miss." Luis saw the look of surprise on his teacher's face. Mrs Watkin walked toward him. "Show me the book, Luis," she asked. Luis offered up the workbook, ready for careful inspection. The teacher flicked through the pages, eyes darting, a look of pleasant surprise on her face.

"Well, Luis, this is fantastic. You've certainly finished – and no mistakes either. Well done! We don't have any more work for today, why don't you take an iPad from the rack and go to the library – you can get a head start on the 'design a new school' contest." Before Mrs Watkin could change her mind, Luis grabbed an iPad and hurried to the library. Just as well the school was going to be bulldozed, he thought. Everything looked old and tired. Mr Tucker, the kindly, bearded caretaker, had done his very best to patch things up over the years but all the effort in the world hadn't been enough to control the leaks and the cracks. One time a dead pigeon had even come crashing through the classroom ceiling, accompanied by hundreds of wriggly, writhing maggots. It was hilarious. The stinky, feathered carcass had dropped right on the desk where the girls sat, resulting in a chaotic blur of pigtails, high-pitched screams and wiggly, jiggly larvae.

Sitting on a beanbag, he set his mind to designing a wonderful school, one that was certain to win the competition. There'd be football pitches, slides instead of stairs and personal teacher-robots for each child. As he sketched his ideas, he heard a strange creaking and groaning sound, which seemed to be coming from the ceiling. Hopefully not another dead pigeon, he thought. The creaking sound came again, followed by a little cascade of white plaster dust, which tumbled slowly from the ceiling and landed on the carpet in front of him. He nervously shifted his bean bag to the left a little.

Again came a grinding noise, followed by the ominous sound of cracking, like a giant monster egg. He glanced up to see a fracture forming on the ceiling, close to where the dust had emerged. The crack started to spread, slowly at first from left to right, then in more directions, forming a pattern like a huge, spiralling spiderweb. He decided to find Mr Tucker, but as he stood up there was a deafening rumble. Suddenly, heavy bricks and rough wood fell upon him, bashing his head and scraping his skin, plunging him into terrible darkness. He could feel jagged rubble all around and on top of him, ashy, gritty dust in his eyes and hair. He tried to move but realised he was trapped, no way to escape. He coughed to clear the awful filth from his lungs. It was hard to breathe and his legs hurt terribly. He couldn't see the damage that the falling bricks had done, but felt the wet sting of blood on his legs. Suddenly, a stinky, maggot-filled bird seemed like a much better option than this.

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In the playground, Mrs Watkin shouted at the children to get in line. The children ran around frantically, screams and shrieks piercing the dust-filled air. Mr Tucker sat on a tree-stump looking crest-fallen, a roll of duct tape hanging pathetically around his wrist as he gazed wide-eyed at the pile of ruins which lay where the school building had been.

Jessie hurried to Mrs Watkin and frantically tugged on her blazer. "Mrs Watkin, I can't find Luis!" At first she shooed Jessie away, intent on getting the children to form an orderly line so that she could count them. Suddenly, a look of despair fell across

her face. The library! Luis was in the library, right at the centre of the wreckage, exactly when the building collapsed. Mrs Watkin, who normally moved as slowly and carefully as a sloth, suddenly started to sprint, straight to where the fire-fighters were gathered at the edge of the school remains. Jessie couldn't hear what Mrs Watkin said, but saw the worried faces of the fire-fighters, heard their radios burst into action as anxious messages were speedily relayed.

Jessie watched as a few cars arrived in the playground, carefully ushered through by police officers. A group of people emerged - they weren't uniformed like the others, instead, they were carefully clutching long, metallic objects that looked like something from a science-fiction film. The objects glinted in the sunlight, sections of silver pieces joined together like alien caterpillars from a faraway galaxy. The people walked towards the wreckage of the school and gently placed the glistening creatures on the floor. To the surprise of the children, the caterpillar creatures started to move, like metallic snakes, into the rubble. Enthralled, whispers of speculation passed around the groups of children. Robot rescue snakes, they gasped.

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Luis was scared and lonely. He'd been imprisoned in the same, awful spot for what felt like forever and had found no way to move, let alone escape. He'd shouted for help but his voice was muffled by the rubble which encased him. As he cowered in the wreckage, wondering if he'd ever get out, he was sure he could hear a scuttling noise, quietly at first, then growing louder. As he strained his eyes he saw a light shining, moving slowly towards him. As it drew closer, he saw that the light was coming from a strange, metallic object which looked like a snake. To his surprise, the snake then spoke, and stranger still, this alien creature knew his name! "Luis, is that you?" At first, he wasn't sure how to reply. He'd never spoken to a silver snake before, or any snake for that matter.

"Um, yes," he replied hesitantly.

"Don't worry, Luis, now that we've found you we can get you out. Are you hurt?"

"I don't know. My legs hurt and I'm really thirsty but otherwise I'm okay. I can't find the iPad though. I hope Mrs Watkin won't be cross." Much to his surprise, the snake started laughing.

"We'll get you a brand new one when you get out, Luis. Don't you know, you'll be making history today – you're going to be the first child ever rescued by SnakeBot, the rescue robot!"

"So that's what you are," said Luis excitedly.

"Now try to stay calm, I'll keep talking to you while the fire-fighters get you out. We know exactly where you are now - the snake-bot has a location tracker. We can see and hear you, too."

As the fire-fighters started the task of carefully clearing the rubble, SnakeBot, or rather, the robot scientists controlling SnakeBot, told him all about different disaster relief robots. He learned about SnakeBot's previous rescue attempts in Mexico, which, although hadn't resulted in anyone being found, had enabled scientists to test the robot, to think about other features, like the microphone. He heard about how scientists had studied the movements of a type of snake called a kingsnake to learn how it moved across difficult terrain, so that they could use that information for SnakeBot's own movement. He even learned of the new sensors that could be added to SnakeBot to make it even better, like a gas-detection sensor. He learned of other disaster and rescue robots, like mountain rescue drones, bomb-sniffing robots and RoboBees – tiny little micro-robots smaller than a paperclip that could fly using artificial muscles.

"So you basically get to play with robots all day and then to rescue people with them?"

"Pretty much, yes!" replied the scientist.

"And you get paid to do it?"

SnakeBot laughed again. "I certainly do!" she replied.

Luis finally saw daylight, and the happy relief on the face of the fire-fighters as they carefully pulled him out of the rubble and to the safety of the playground. As he emerged into view, the children in the playground cheered loudly. The scientists

clapped and hugged each other, delighted that SnakeBot had succeeded in his perilous mission.

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The next day, Luis excitedly limped to the front door to collect the local paper. On the front page the title, in big, bold letters, said, "Brave boy rescued from school disaster zone by SnakeBot!" Next to the title was a picture of his smiling face, proudly clutching the amazing SnakeBot who had helped to rescue him. Although he had been terrified by the collapse of the school, he felt happy that he'd been able to make history by being the first child ever to be rescued by SnakeBot. He also hoped that one day he'd get to help the scientists with the RoboBees, and perhaps even become the first scientist to participate in a RoboBee rescue mission.