Cornwall, England
December

The earthquake was a small one. The post office shook only slightly, the window rattling in its frame and dislodging an Advent calendar. The van outside vibrated just enough to set off its alarm, and if you were watching closely you might have seen the traffic lights shudder in their concrete base.

A local nurse out walking her dog felt a vibration through the pavement and stopped. She would have thought nothing of it but for her Labrador's sudden bark and raised hackles. She could hear at least two other dogs reacting with a torrent of howls and yelps in houses nearby. The nurse looked around, then shrugged and resumed her walk. Her dog followed, tail between his legs.

A man reading his paper in the bath felt a rumbling and, glancing down, noticed a tiny series of waves running from the edge of the bath to his knees. There were three sets of waves in all, each one a centimetre behind the other. He got out of the bath, telling himself it was because the water had gone cool.

Beneath the man's house, the foundations absorbed most of the tremor. They were two metres deep – his house had been built at a time when this was considered wise. The peat that lay beneath moved and folded, and the silt that was ten metres deeper still cracked and heaved for the first time in decades.

Under this was ten metres of sand and all sorts of crushed shells laid down over millions of years – all moving, creasing and pushing into new shapes and layers. Below that lay twenty metres of slate and tin which had shaped so much of the county's history. Then came the granite; under pressure from the magma – the liquid rock heated by the Earth's core – its veins and cracks opened and closed.

And from deeper still came a small dark cluster, pushed up higher and higher, forced through the fissures, stopping only when it met the cooler, solidified mass of granite that ran for miles like a ceiling, north, south, east and west.

It stopped there.

One thousand metres beneath the man and his bath.

Waiting.

Chapter 1

Itchingham Lofte had caused explosions before. There had, in truth, been many bangs, flashes and smells coming from his bedroom in the past. His multi-stained carpet and pockmarked walls bore testament to that. But there had been nothing like this one. It wasn't just the bedroom walls that shook; it was the whole house. Windows and doors rattled, the pots and pans in the kitchen jumped, and two drawers in the dresser opened.

Not that Itchingham was aware of any of that, as he was unconscious. He would have stayed that way too if it hadn't been for the fact that his eyebrows were on fire – and the astute decision of his eleven-year-old sister Chloe to throw a mug of water over his face.

Itch (everyone called him Itch, apart from his mother, whose idea it had been to christen him Itchingham in the first place) sat up sharply, shaking the water out of his eyes. 'What did you do that for, Chloe?' he said. 'I did have it under control, you know.'

Chloe shrugged and said, 'Yeah, right. Your eyebrows were burning,' and she turned and went back to her bedroom, which was across the landing.

Itch felt for the prickly remains of what used to be his eyebrows – what was left crumbled in his fingers. Then the unmistakable smell of burned hair filled his nostrils and he realized Chloe had been right. He stood up a little gingerly and thought he'd better go after her and admit it, but when he poked his head into her room, he found she was already asleep. Itch marvelled at her ability to get back to sleep in seconds – something he had never been able to do. The truth is, if you sleep in the room next to a fourteen-year-old science-mad boy who likes to blow things up, you learn very quickly only to take any notice of the very *big* bangs.

Itch went into the bathroom to dry and inspect his face. Both eyebrows had indeed gone, and about an inch of his fringe too. His wavy blond hair tended to be straggly anyway, but this explosion had

forced it into a completely new style. Most of the sooty black smudge on the left side of his face came away with a vigorous rub.

Itch went back to his room and surveyed the mess. A *really* bad one this time. White smoke hung in the air and clung to the walls. Where the contents of his beaker had splashed, the carpet had turned black; Itch thought it had originally been green, but that was a long time ago. The beaker itself had shattered into a number of pieces, three of which had embedded themselves in the curtains. Burn marks surrounded each of the fragments. He climbed onto his bed to retrieve them and stood on a fourth piece, which crunched and then poked its way through his sock. Itch winced and pulled it free. Blood began to ooze through the cotton.

There had been a few posters on the walls, all bearing the scars of previous mishaps. All had now been blasted to pieces. He put their remains under his bed, together with the fragments of beaker. He scraped the chemical remains of the explosion off the carpet and wrapped them in his wet towel. These too were shoved under the bed.

Itch changed into his pyjamas and took his clothes, along with his bloodied sock, downstairs to the wash. This was, he had learned, the only way to get rid of the smell of smoke. His foot still hurt from the shard and he hobbled along to get the detergent. He put the washing machine on its quickest cycle and hoped it would all be done before his mother got back. Thirty-one minutes later the machine beeped at him and he hung his clothes up to dry.

With any luck, thought Itch, *Mum won't notice and I'll just about get away with it.* He had got away with so much over the years that this wasn't necessarily wishful thinking.

But Itchingham Lofte had forgotten about his missing eyebrows . . .

Jude Lofte arrived home just after eleven-thirty. This was late, even for her. Itch had been in bed for twenty minutes but was nowhere near sleep. It always took his brain a couple of hours to shut down anyway, but tonight he was lying in his dark room, increasingly aware of how much it stank. Even with the window open, as it had been for the two

hours since the explosion, there really was no escaping the smell of burning phosphorus. He was annoyed with himself for many reasons; mostly because he'd used too much of the phosphorus he'd collected from a couple of old ship's flares. Too many match heads as well. And maybe, on balance, mixing them up with a screwdriver had been one of his more stupid ideas. He was also annoyed that Chloe had seen the post-explosion chaos in his room.

Itch had a pretty good relationship with his sister, even though she was only eleven and – clearly – a girl. He knew that most fourteen-year-old boys ignored their younger sisters at best and dismissed them as deeply stupid at worst. But Itch and Chloe Lofte tended to stick together. They got called Itchy and Scratchy after *The Simpsons*, of course, but as Itch had explained to her, there are plenty of worse things to get called. Chloe had pointed out that it was OK for him as he had such a ridiculous name anyway.

Itch heard his mother shut and bolt the door and go into the kitchen. She wouldn't inspect anything too closely. Normally she made herself a tea and then worked downstairs in her study until very late. Sometimes so late that even Itch was asleep . . .

He heard the kettle being filled and the tea tin being opened. Then a silence – followed by his mother's footsteps in the hall, where she stopped. Itch tensed. He could hear sniffing. His mother was now coming up the stairs, still sniffing. The smell of the burning phosphorus in his room had been so strong, he hadn't noticed that the whole house was filled with the stench of burning ship's flares and match heads.

Jude Lofte paused outside Itch's room. She waited all of two seconds before opening his door. Slowly at first; then, as the still powerful smell hit her nostrils, she opened it fully. The landing light shone into the darkness of the bedroom. Itch was lying on his side with his back to his mother, curled up in the classic foetal position. Quite why he was bothering to go through this pretence he wasn't sure. He knew exactly what was going to happen next. He knew *exactly* what his mother was going to say.

‘Hello, Itchingham. Been busy?’ She sat down on the side of his bed. This was, he knew, the calm before the storm. She always started gently but it usually didn’t last long.

‘Oh, hello, Mum. Er, yes, I’ve done my French homework – though I did get—’

‘I wasn’t thinking of your homework. I was thinking of the smell of bonfires, which as we’re nowhere near the fifth of November almost certainly means you’ve had another accident.’

His mother got up and turned on the light. Itch had made a reasonable job of clearing up, but he hadn’t calculated on a late-night maternal visit. Fixing Itch with a stare, Jude crouched down beside his bed and peered underneath.

I really need to think of somewhere else to hide stuff, thought Itch as she pulled out the damp remains of the evening’s experiment-gone-wrong.

‘You really do need to think of somewhere else to hide stuff, Itchingham,’ she said, as though reading his mind. ‘Did you really think I wouldn’t look here? Did you really think I wouldn’t know where to find the source of the stench – the latest you have blessed us with?’

The sarcasm was the final stage before eruption. In geography Itch had just learned about volcanoes and the Volcanic Explosivity Index, which was used to measure the power of eruptions. Mr Watkins had said that it went from ‘gentle’ to ‘severe’ to ‘colossal’ and finally ‘mega-colossal’. From his mother he could expect ‘colossal’ – though he wouldn’t rule out a full-blown ‘mega-colossal’.

Jude Lofte’s top lip quivered; Itch’s stomach tightened.

‘How many times, Itchingham? HOW MANY TIMES? I told you the last time when you set fire to your bed that any more – ANY MORE – accidents, and that was it. We only escaped then because Chloe had started keeping a fire bucket in her room.’

‘That was the classic volcano experiment!’ said Itch. ‘I just hadn’t realized how close the duvet was to the flames—’

‘Enough! Stop! No more experiments. At all. NONE.’

Itch said nothing, and now his mother slowed down. 'Have I made myself clear? I want all your kit – chemicals, Bunsen burners, flasks, and whatever else you have hidden away in your wardrobe – outside in the garden after school tomorrow. No explosions, no "volcanoes", no burning hydrogen bubbles. *Nothing.*'

Itch's jaw dropped. 'But I can't just leave everything in the garden. It isn't safe!' He felt a bit panicky now. His 'kit', as his mother called it, had taken a long time to assemble and was his pride and joy. His friends at school talked mainly of football and surfing; he had no interest in the first and only a passing one in the second. *His* passion – his 'really lame hobby', as Chloe called it – was about to be cleared out of his room for ever.

'Well, you should have thought of that before you tried to blow the house up. And what *have* you done to your face?!' Jude had stopped looking around her son's bedroom and had just noticed his eyebrows. Or lack of them.

'Oh, they burned off. Sorry.'

'SORRY?' shouted Jude. 'Sorry? You could have been blinded! Really, Itchingham, you are an idiot sometimes.' She put her hand under his chin and tilted his head up to the light. 'Well, they're gone.'

'How long till they grow back?'

'Depends what you torched them with.'

'It was phosphorus.'

Itch's mother put her head in her hands. 'Good grief,' she said. She sat silently for a few moments. Itch thought he should stay silent too. Then she stood up and turned for the door. 'All of it – in the garden. Tomorrow.' She walked out of the bedroom, switching the light out as she went.

Itchingham Lofte's obsession was a strange one. It thrilled him to his core, but he was coming to the conclusion that he might be on his own. He couldn't understand why no one else got it. As soon as he tried to explain, everyone yawned and changed the subject.

Some people could name every single computer game released in the last year; others could describe every goal scored by Manchester United in the current season. Itch could name, explain and was collecting *the elements*. The Table of Elements. The Periodic Table. Whoever came up with those titles, Itch thought, had done a spectacularly bad job. It was as if they were trying to put people off by disguising a great subject with the world's dullest name. If it had been called 'The Rocks Factor', more people would get it. If his hobby was marketed in newsagents with: 118 TO COLLECT! WHO WANTS GOLD AND SILVER? GET YOUR PLUTONIUM HERE! maybe things would be different.

There was no point in collecting anything else; this *was* everything else. It was the catalogue of everything that existed in the universe, stripped down to its 118 basic ingredients. If Itch was honest, part of him was relieved that most people just left him to get on with it. How boring to be the same as everyone else. Did the world need another football fan? He didn't think so.

He had tried to keep up when he started at the local secondary school – the Cornwall Academy – so that he could take part in the conversation. He had read the sports pages of his mum's paper, talked to his older brother, Gabriel, about what happens in *Call of Duty* and watched the odd match on TV, but his heart just hadn't been in it and his classmates soon realized he was a phoney. He didn't get their passions, they certainly didn't get his, and Itch had slowly realized he'd just have to accept it.

He had always enjoyed collecting things. Tucked away in a drawer somewhere, he still had folders and albums stuffed with Pokémon cards, coins, maps, marbles and frogs (that one didn't last long). They all seemed a very long time ago now. For two years now, Itch had considered himself an element hunter and it had slowly taken over his life.

It had taken over from friends too. He had never found it easy to make friends, particularly since his family had moved to Cornwall from London when he was eleven. He had felt an outsider from day one. All his new classmates were a good three inches shorter than him, spoke differently and, to Itch's bafflement, many said they weren't even

English but Cornish. He had learned not to argue and had given up trying. They all got on fine without him and he could get by without them.

Itch woke up as his sister banged on his door. They had a well-established routine. Chloe always woke first, and after she had dressed for school she would knock loudly as she passed his door. She would go downstairs and, if their mum hadn't appeared, would start breakfast. Itch normally came down ten minutes later, but this morning it took him longer to get dressed and find his school things. The twin explosions – of the phosphorus and his mother – weighed heavily on his mind. He hoped his mum had worked late and slept in.

He was to be disappointed. He hadn't been in so much trouble since the stink-bomb moment six months ago. He had got hold of some American army spray that had made the whole house smell like a toilet. It had taken a professional cleaning company three days to get rid of it.

'Hello, Itchingham,' said his mother. 'Still no eyebrows, then.'

There should be a law against parents using sarcasm, thought Itch as he poured his cereal. He looked up at his sister. Her expression suggested that it was best to stay as quiet as possible over the next few minutes. He felt sure Chloe wouldn't have said any more than she had to, though she did mouth '*Boom!*' at him whenever she was sure their mother wasn't looking.

Jude Lofte stood at the stove in what Itch was sure were the same clothes she was wearing yesterday – her usual dark grey skirt and white shirt. They looked a bit rumpled, as did she. She was tall and broad-shouldered, with the same mousy-blonde, wavy hair as Itch.

'From now on,' she said, 'no experiments in the house. Ever. At all. Is that clear?' Before Itch could reply she carried on, 'And I will be inspecting your room. Any bits of equipment or' – she paused – 'strange rocks will be taken to the tip. I can't have you endangering your sister or the house again. From now on, if you have anything to mix, anything to smash, anything to play with that's more dangerous

than, say' – she looked around – 'a bowl of Cheerios, then you do it in the shed.' She went over to the kettle.

Itch's mouth fell open. 'What?' he said. Hardly believing what he had heard, he pressed for some clarification. 'You mean I can carry on as long as I only experiment in the shed? Really?' He was trying to keep the relief out of his voice for fear that his mother would realize she had been surprisingly lenient. Working in the shed had the huge advantage of being at the end of a twenty-metre garden. Itch would have suggested it himself but had assumed there was no room and the answer would be no.

'It seems last night's bang has affected your ears as well as your eyebrows,' Jude said.

Chloe sniggered. Itch shot her a 'thanks for nothing' glance.

'OK, fair enough. I agree,' he said, slightly too quickly. Such was his relief that he then gave the game away completely by trying to give his mother a kiss on the cheek. She was unprepared for this, and moved her head away so that Itch ended up kissing the air where it had been. Displays of affection when their father wasn't there were rare in the Lofte house, and it left both mother and son slightly embarrassed and awkward.

Jude covered the difficult silence by putting the radio on. The kettle boiled and she made another mug of tea. She sat down at the table and blew on it. Itch was about to explain how pointless that was and how it would never lower the temperature of the tea unless she blew continuously for twenty minutes, when again he checked himself. And said nothing. Chloe continued to eat her breakfast. Jude sipped her still very hot tea and looked up at her son.

'Please, Itch – nothing dangerous. You got away with it this time. Just stick to rocks that don't blow up, OK?' She sounded genuinely concerned.

Itch, taken aback, agreed. 'OK, just the safe stuff, Mum – promise.'

She managed a half-smile and started to clear the dishes.

It was then that Itch remembered the arsenic.

Chapter 2

This wasn't a good start for the new 'nothing dangerous' regime. Itch's arsenic was contained in a recently acquired piece of green leaf-patterned wallpaper. The guy who sold it to him had explained that in the nineteenth century arsenic had been used as a dye; it had been called 'Paris Green' and was considered the best green pigment it was possible to buy.

After breakfast Itch went back to his room to get his school rucksack – somehow it had survived the explosion of the night before. He blew some ash from the handle and dusted off the rest. When he returned from school he would begin the transfer of his collection, his 'kit' and his books to the shed, but in the meantime he had to decide what to do with his more dangerous items. Personally Itch didn't think they were dangerous at all, as long as you didn't try to eat them or set fire to them, but he knew his mum would not agree.

Under the new closer-inspection regime, these items might not survive. He had always kept the riskiest elements of his collection out of sight. In his bedroom ceiling was a small recessed square of wood which, when pushed up, gave access to the loft and the water tanks. One of the first things he had done after they moved into the house was to write ITCH'S LOFT! in biro on its white paint. It had made his father laugh and he was still proud of the joke. Standing on a chair, he eased the plywood cover back into the darkness. His hands quickly found the packages he was looking for. They were dusty, damp and, Itch thought, smelled of garlic. One was a large A3 envelope, which he folded in half; the other two were bags which he then put in a plastic carrier bag. He placed them all at the bottom of his rucksack, his school books going on top. For the moment they'd be safer with him.

Itch was now walking the mile to school with Chloe, an envelope stuffed with the arsenic wallpaper, a matchbox with a teaspoon of gunpowder in it, and two radioactive clock hands in a Jiffy bag. These had apparently been painted with radium in order to make them

luminous. Itch had bought them from a mineral seller he had first met at a Surfers Against Sewage fair in St Austell.

The mineral seller had said his name was Cake. Just Cake – no first name. Or was that his first name? They weren't sure. Itch had wanted the gunpowder because it had sulphur in it and he hadn't collected any of that yet. And gunpowder sounded cool. The clock hands looked rather dull, but the fact that they were painted with radium made them his first radioactive acquisition. The arsenic wallpaper was, apparently, rare, and Itch had been told that he should buy some while he could. The whole lot had cost him sixty pounds in total, which was all his savings.

As they walked down the hill towards the golf course and the sea, Chloe said, 'You know that people will notice your face.'

'Your friends might, but the kids in my class won't,' said Itch. 'Boys don't look at eyebrows very much.'

'But your face looks all weird now; of course they'll notice,' Chloe replied. 'Any fool would notice.'

'Not the fools in my class, Chloe, trust me. Unless Potts, Paul and Campbell spot it, of course – in which case I won't hear the end of it.'

James Potts, Bruno Paul and Darcy Campbell were the main Itch-baiters in the school. They thought that Itch's dislike of sport was proof of his weirdness. Of course, they were the sportiest boys in the school and liked everyone to know it. It seemed to infuriate them that Itch had no desire to be like them, and for that reason alone, they had decided to make his life difficult. Chloe was included in this just for being his sister, and even their cousin Jack, who was in Itch's class, got some stick. It had been Darcy who had first used the 'Itchy and Scratchy' line that was now in common usage. Even Mrs Tooley in Year Seven English had been heard to use it. Other nicknames had come and gone; 'Snitch' and 'Lofty' had lasted longest. Eventually they all petered out; most of the pupils just ignored Itch, so they had no reason to call him anything at all.

The golf course sat in the middle of the town, with most of the houses further up the hill to the north. If they were early enough

they could get across the course without being shouted at. Walking around it added another fifteen minutes, and they were cutting it fine as it was. The almost new Cornwall Academy lay at the southern end of the town, beyond the shops.

It had previously been called Pitcowenn Secondary – which was declared to be rubbish and had been turned into a swanky new academy. Clearly a lot of money had been spent: all the buildings were new and full of top-of-the-range equipment. Only the main hall of the old school had been deemed good enough to survive the upgrade. The school had been designated a 'Science Academy' and attracted many sponsors: charities, eminent scientists and a global oil company. The academy logo proclaimed: *Together. Inspired.* No one seemed quite sure what it meant.

Chloe and Itch turned off the golf course and headed down the high street. Most of the shops were still shut, with only the newsagent's and two cafés open. Many of the tourist shops hadn't bothered opening since last October, but with summer only a few weeks away they were showing signs of life, with coats of paint and new surfing gear displays.

'What was that bang last night anyway?' asked Chloe. 'I thought you'd blown yourself up.'

'Only a little phosphorus. Well, a little too much phosphorus actually,' said Itch, rubbing the place where his eyebrows had been.

Chloe looked up at her brother. Like all Loftes, she was tall for her age, but she was still nine inches shorter than Itch. She had short pixie-like brown hair but the same blue-green eyes as him.

'You could borrow some mascara.' She started rummaging in her bag, but Itch cut her off.

'That's the most stupid thing you've ever said. I might get away with *no* eyebrows – but painted ones? Are you mad? And since when did you wear mascara?'

Chloe shrugged and stopped looking. 'You're going to have to stop drawing attention to yourself at home, you know,' she said.

Itch sighed. ‘I know, I know. I need to only do the quiet stuff for a while. At least I’m in the shed now. Mum will forget I even exist.’

Chloe laughed. He had a point. Their mum’s work as a solicitor kept her out of the house till late most nights, and if Itch spent the weekend in the shed, he would, to all intents and purposes, disappear completely from her life.

Chloe ran off as they entered the school reception area, and Itch made his way down the corridor. It was the week before the May half term and much of the academy seemed to be in a frenzy of exam preparation. There were timetables everywhere, with last-minute revision sessions advertised on every notice board. None of this affected Itch yet, of course – he was a year away from his first GCSEs – but he sensed the tension that kicks in with the dreaded exam season. He peered into Chloe’s classroom as he went past and saw that she was chatting happily to a group of friends. Chloe found the friends thing a whole lot easier than Itch did, but he was pleased she had settled in at the academy in her first year. He walked on past the other form rooms, turned the corner by the science block, with its familiar aromas of gas and floor cleaner and the unquantifiable smell of a thousand different experiments. He turned left again and came to his form room. He paused, closed his eyes and took a deep breath. He always had a shot of nerves before he walked into the classroom, but today was worse. He opened his eyes, pulled some hair forward to where his eyebrows had been, and went in.

‘Hey, Itch, come and have a look at this.’

He relaxed. It was his cousin Jack, the best thing that had happened to him in all his time at the academy. Jack was short for Jacqueline, and she was tall, like all the Loftes, with short, straight jet-black hair cut with a fringe. She had lived in Cornwall all her life as her parents ran a couple of guest houses. She sat with Itch when classes allowed. They had barely known each other till Itch’s family had moved down from London, but now she was his constant companion.

Jack seemed to accept him as he was and didn't expect or want him to change – he appreciated that. For her part, she had always wanted a brother or sister and couldn't believe her luck when the 'slightly odd cousin' she had heard about but barely met turned out to be a whole lot more interesting than her school friends. She was happy to have an almost-brother round the corner. Her father, Jon, and mother, Zoe, had helped them all move into their new house and then shown Itch, Chloe and their elder brother, Gabriel, around the town.

With Jack in the same class, Itch could stop trying to make friends. In his first weeks at the academy he had really made an effort. He'd laughed at everyone's jokes, joined the science club and hung around after school. But the only person who was ever pleased to see him was Jack. She realized that Itch was a little different, but she was happy to tolerate that. When Itch started to tell her about the chemical composition of her Twix or why her apple was turning brown, she would just flick his ear or poke him with a pencil.

'Don't be boring, Itch, or I'll tell you more about *Hollyoaks*.' This mention of Jack's favourite TV show was usually enough to stop him in his tracks.

Itch went over to Jack's desk, and was about to throw his bag down when he remembered what was in it and placed it rather more carefully on a chair.

Jack waved a magazine at him; it was a surfing publication called *UP*. 'Latest one,' she said. 'It's got the new suits in. Check out the O'Neill Psychofreak. It says it's their warmest and most flexible wetsuit ever.'

Itch looked at the windswept and tanned male model who was showing off the Psychofreak. 'Looks great, but the price doesn't.' At £290 it was so out of their price range, Itch didn't really want to read about how brilliant it was. Surfing was more Jack and Chloe's thing anyway. 'I'll make do with Gabriel's old one for another year, I suppose. No one's expecting me to be the best-dressed bloke on the beach, are they?' His brother's wetsuit had been his for two years now; it had once been ridiculously big, but was now eye-wateringly tight. He'd like a new one, of course, but all his money was going on

element hunting. There was also the small matter of not being very good at surfing. Try as he might – and Jack was always trying to give him lessons – when a wave came, he could be relied upon to miss it.

'Time for a surf after school?' asked Jack. 'Surf's about right at four.'

'Thanks, Jack, but Mum's told me I've got to move all my rocks and stuff out of my room. Had – erm . . . a little accident last night.'

'Did it by any chance involve a flash big enough for you to lose your eyebrows?' She smiled and turned away to speak to some other classmates.

So Chloe was right, Itch thought – it *was* noticeable – but he still reckoned the boys would have no idea.

By now most of the class were in, the last two arrivals being Tom Westgate and James Potts. Tom tolerated Itch, but James Potts most definitely did not. Shorter than most of the class, he was nevertheless faster and stronger. He wore trainers with everything and boasted that he had an illegal tattoo 'somewhere really exotic', though no one had ever seen it and many doubted it existed at all. His fellow sports geeks and Lofte-baiters, Darcy Campbell and Bruno Paul, were in the other Year Nine class. Two or three times a day they were in the same classroom with Itch, and unless there was some some big sports event to discuss, their attention would normally turn to him.

Their form teacher, John Watkins, hurried in, bags, books and files piled precariously in front of him and a briefcase somehow hooked around his fingers. As usual, he looked as though he had dressed in the dark – orange trousers and a green shirt with permanent sweat stains under the arms. The smell of tobacco suggested that he had enjoyed one last hasty fag before entering the fray of another day as form teacher of Year Nine at the Cornwall Academy.

He let everything topple onto his desk, where the bags, books and files added to the unsteady pile. Mr Watkins glanced at it long enough to make sure it wasn't about to slide off onto the floor, then turned and smiled at his class. 'Morning, boys – let's begin.'

Form 9W had given up pointing out that the class was more than fifty per cent girls and just accepted that by 'boys' he meant everyone. Mr Watkins had come five years ago from an all-boys school in Edinburgh, and he was clearly not about to change the way he spoke to a class. He was overweight, permanently sweating and always bustling everywhere at full speed. He was head of geography at the academy and one of the most popular teachers they had. His stories were legendary, and many a class would begin or end with a thrilling tale of flooding, earthquakes or riots.

'All present? Excellent! A good weekend, I trust? Splendid! Who wants to get me a tea? Sam, be a love – one sugar, thanks.'

Sam Jennings, who usually sat near the front of every class, rose wearily from her seat to perform the ritual that was a normal part of every morning with Mr Watkins. He always had his own kettle and weird tea bags at the front of the class.

'A reminder from our new friend, Dr Flowerdew, and our colleagues in the science department that biology today is in the greenhouse – you may take bottles of water with you. Some clowns last year thought they wouldn't need any and fainted on a cactus or something unpleasant. It's hot and steamy in there – you can get some water at lunch. Ah, Sam! A lovely brew, thank you.'

Sam Jennings shrugged and sat down again while Mr Watkins took registration.

The first two periods for Itch were history and English, which he drifted through without having to concentrate much. More Tudors, more *Animal Farm*.

Itch struggled in most subjects and only really engaged with any lessons when it came to science. The biology session in the greenhouse was intriguing; they hadn't had any lessons there before. But first he had double maths and lunch to endure. Lunch would be tough today because Jack was busy with friends and Chloe had a choir rehearsal. Whenever this happened, he ate on his own and then went somewhere the Itch-baiters wouldn't find him – usually the library.

He met Jack just before biology. She already had two bottles of water with her; she handed him one.

'Thought you might forget,' she said as they started to walk round the outside of the school, between the playing fields and the language labs and then past the old school hall. The greenhouse had been part of the rebuilding when the school turned into an academy, and it featured prominently on the website. They were very proud of their greenhouse. 'Didn't see you at lunch,' she continued. 'My mates had to go early – roped into sorting out tickets for some school band concert after half term – so I looked for you.'

'Reading,' said Itch.

'With anyone?'

'Well, there were other people there but I wasn't *with* them, no.'

Itch and Jack had got as far as the old hall when they heard the familiar cry of: '*Weirdo cousins.*' It came from a trio of voices – Potts, Paul and Campbell. They had set the words to an R&B song that was all over the radio and TV, but it ended up sounding like a rowdy football chant. However, they were clearly enjoying themselves and continued the refrain all the way to the greenhouse. Itch and Jack walked on in silence, Itch with his head bowed and Jack looking away.

During his first months at the CA, Itch had answered back, shouted back and rude-gestured back, but when he hooked up with Jack, she suggested ignoring them in the hope that they would get bored and pick on someone else. But it had just seemed to irritate them all the more. However, until a new strategy could be dreamed up, the 'take no notice' policy remained in place.

As it turned out, Itch and Jack, Potts, Paul and Campbell and most of the rest of the Year Nine biology class all arrived at the greenhouse at the same time. It was an impressive structure, fully thirty metres long, ten metres wide and ten metres tall. The wood was painted white, and from a distance you could see assorted plants filling the interior, though up close the condensation made inspection difficult. A few cracked panes of glass remained from last year's earthquake; the broken ones had been replaced. Small earthquakes were

not uncommon in Cornwall, but Mr Watkins had announced that at 3.8 on the Richter Scale, it had been bigger than most.

They all milled around for a while waiting for Miss Glenacre, the biology teacher, to emerge. Many of the class pressed their faces against the glass to get a glimpse of what was in store for them, but the steamed-up panes frustrated all but the most keen-eyed students.

After a few minutes the door opened and Miss Glenacre appeared, with Dr Nathaniel Flowerdew, the head of science, at her shoulder. The sight of the two of them was enough to trigger a few groans around the edges of the student gathering. Miss Glenacre was, by common consent, approaching her one hundredth birthday and had never had a charitable thought about anyone in her life. The truth was, she was indeed waiting for retirement, but only from the vantage point of sixty-four years, and had actually enjoyed teaching 'until the paperwork and government took over'.

By contrast, Flowerdew was an impressive figure. In his late forties, he was rakishly good-looking with well-cut, tight curls that had turned completely white. He had deep blue eyes, broad shoulders and the figure of a man who had gym membership. As there wasn't a gym in the local area, everyone had concluded that he had the relevant equipment at home. He was wearing a dark blue suit, brilliant white cotton shirt and electric-blue silk tie. The jacket was undone and a brushed chrome watch showed from beneath his left cuff. His shoes were black loafers. Everything was expensive and somehow out of place in a school field outside a greenhouse.

As a teacher, Flowerdew had proved instantly unpopular. Always seemingly in a sour mood, he gave everyone the impression that the academy was somehow beneath him. It was also clear that the rest of the staff didn't rate him. His reputation, so everyone said, was as a brilliant chemist. The staff and pupils of the CA were waiting for the evidence.

He addressed the students, his voice crisp and educated.

'Shut up, Nine W, and listen. You will have one period with Miss Glenacre here, and when you come out you will not have fainted, you will have listened, and you will know what a *Neomarica caerulea* is.

Don’t touch anything you are not asked to touch, don’t put anything in your mouth, Burnham, and for heaven’s sake drink water when you need it – you don’t need to ask permission. Miss Glenacre is pleased to be your guide; listen well.’ And with that he strode back round the old hall in the direction of his labs.

Johnny Burnham, who had once put some magnesium ribbon in his mouth ‘to see what it tasted like’, flushed scarlet and shrank a little.

They all trooped into the steamy confines of the greenhouse. Miss Glenacre marched to the far end and waited, hands on hips, for everyone to catch her up. She called out, ‘All bags to be left at the door. There isn’t room for swinging rucksacks in here.’

Itch, Jack and half the class turned round and put their bags in a heap by the entrance. Itch wondered whether it was wise to leave his rucksack unattended, but he didn’t have a choice. He left it on top of the pile where he could see it.

They trooped back past the bananas, tomatoes, cacti and other unrecognizable plants to where Miss Glenacre waited to start the lesson.

‘Why are we here?’ she said. Silence. ‘Anyone. Why are we here?’

‘An accident of evolution?’ chanced a very brave Ian Steele, standing near some peculiar dangly pink plants. Itch and a few others smiled; Miss Glenacre scowled.

‘Idiot boy, Steele. Not why are we on *Earth*, as you well know, but why are we in the greenhouse?’

‘Because it cost a fortune?’ tried Bruno Paul, smiling and nudging James Potts next to him.

‘If the point you are making is that we are very lucky to have such a splendid resource, you are quite correct. But that is not the answer. Anyone?’

Itch knew the answer but kept his head down.

‘No one at all?’ sighed Miss Glenacre. ‘We are studying’ – and she said the next word very slowly, as if to five-year-olds – ‘pho-to-syn-the-sis. Turning carbon dioxide into sugar and oxygen using

light.' She tutted and, motioning for the group to follow her, turned and started her tour of the plants.

They had only been in the greenhouse for fifteen minutes, but the temperature was 35°C. Glenacre's words were punctuated by the sound of water bottles being squished and emptied by the students of the Year Nine.

It was after about thirty minutes, just as Miss Glenacre was trying to pull down the top of a giant, spiky green and yellow plant, that the first student vomited. It was Johnny Burnham – and it was *spectacular*. He had been swaying and staggering for a few moments. Then, with one hand over his mouth and the other pushing his classmates out of the way, he brought up his breakfast all over a plant labelled *Eucomis pole-evansii*. He knelt down on the floor, his hands gripping the sides of a large pot, his head deep in the foliage. It was clear he hadn't finished.

Then two girls fainted. Natalie Hussain and Debbie Rice had turned horribly pale and then collapsed on top of each other. There were screams from the other girls, and before Miss Glenacre had reached the door to allow some fresh air in, four more students had been sick. The stink of vomit filled the greenhouse within seconds.

'Everyone out!' yelled their teacher. 'Tom, go and get Dr Flowerdew.'

Tom Westgate ran out of the door. The class stumbled outside as quickly as they could, hands or tissues over their mouths and noses. Glenacre propped up Johnny Burnham and called for Itch and Jack to help Natalie and Debbie. Itch picked Natalie up by the shoulders and got her into a sitting position. She groaned, opened her eyes – and was sick over Itch's trousers.

'Nice shot, Nats!' called a fleeing Darcy Campbell.

'Feeling a bit bad myself, miss,' said Itch, looking down the dampness on his legs.

'Same,' said Jack, who had been struggling to help Debbie Price to her feet.

Itch swiftly lowered Natalie back down and ran for the door. He almost made it too; he got as far as the pile of bags and was sick

there instead. He stumbled outside and slumped down on the grass. He closed his eyes; everything was spinning. He could tell without looking that a good proportion of Miss Glenacre's biology class were now in the process of being violently ill.

When he opened his eyes again, he saw Jack and Miss Glenacre helping a very wobbly Natalie, Debbie and Johnny out of the greenhouse. Itch tried to stand up, but felt so giddy he sat right back down again. It looked as though his teacher had been sick too.

By the time Dr Flowerdew came running round the old hall, closely followed by Tom Westgate and a short, wiry girl from Year Ten, the entire class – and their teacher – were lying sprawled across the grass. Some were still throwing up, many were groaning with hands clasped around their stomachs, and at least half a dozen were crying quietly.

Flowerdew pulled up sharply, unable to comprehend what he was seeing. It was like a scene from a disaster movie. 'What the . . . ? What on earth . . . ? What has . . . ?' He looked around, trying to find Miss Glenacre. 'Grace? Where are you? Grace?'

She raised her hand. She clearly didn't want to open her mouth just yet.

Dr Flowerdew ran over to her, stepping over students and shouting at Tom to go and get the head. Tom Westgate turned and ran off again.

'What the hell has happened? Grace! Talk to me! I only left you half an hour ago.' Flowerdew managed to sound concerned and furious at the same time.

Grace Glenacre's long grey hair, which had been tied back, was now loose. A few strands were plastered to the side of her face. She put a hand in front of her mouth and tried to speak.

'I don't know . . .' She sounded hoarse. She coughed and spat. Flowerdew looked away and she apologized, then tried again; her voice was stronger this time. 'I don't know – everything was fine. It was hot, of course, but everyone had their water. I think I had got as far as the *Passiflora* when Burnham started being sick.'

‘Burnham!’ said Flowerdew. ‘I might have known. Was he eating the plants as well as studying them? The boy’s a fool. And then hysteria took over, I suppose, and everyone joined in. What a mess this is.’

Miss Glenacre looked incredulous. ‘Are you including me in the “hysteria”? Are you suggesting I just “joined in”?’ She sat up a little.

‘Well, it’s possible, isn’t it?’ said Flowerdew. ‘It’s very hot in there, you have twenty-seven students in an enclosed space, one of them gets ill and it’s easy for others to follow suit. Classic copycat stuff.’

Grace Glenacre had forgotten that she had just been ill. Now she was furious. ‘How dare you – how *dare* you!’ she shouted. ‘I don’t think I have ever sworn at a member of staff before but I’m going to now.’ She swore at him. ‘I have no idea what just happened in there, but twenty-seven sick kids and one sick teacher is *not* hysteria.’ Her voice was rising now. ‘*It’s not hysteria*, do you hear me!’

Flowerdew stood up. ‘You’re hysterical now,’ he said. ‘We’ll talk later.’

He went into the greenhouse, but the heat and the acrid stench that hit him forced him back. In front of him was an extraordinary scene. The plants were in lines of four with two aisles to walk down. There were fifty different varieties of flora, some huge, green and nearly hitting the roof, others wide and spectacularly colourful. It seemed to Flowerdew that they were all looking somewhat more colourful than an hour ago. Everywhere he looked there were regurgitated breakfasts. He’d just realized he was standing in a small pool of gastric juices and sausage when he heard the head arriving.

Dr Felicity Dart was running. She was in her early fifties but she kept herself fit and trim, cycling to school and often jogging around the playing fields at lunch time. In general, staff and pupils liked and respected her but knew that she had a fierce temper and a voice like a foghorn. If she started a shouting session, everyone knew about it. Just as Dr Flowerdew had done, she pulled up short as she surveyed her pupils. A couple of them were still retching, and many were still flat out, but a few were now sitting up, texting. She

looked beyond the Year Nines to where Miss Glenacre sat shaking. Then she turned to the head of science, who was standing in the doorway of the greenhouse.

'DR FLOWERDEW!' she hollered. 'IF YOU WOULDN'T MIND.'

She ran over to Grace Glenacre, who said, 'I'll be OK. Check on the children – some have been very ill.'

Felicity Dart turned to the still puffing Tom Westgate. 'Tom, go and get Mr Littlewood and tell him to call for ambulances please.'

Tom glanced at his classmates, then headed off for the third time. Jim Littlewood was the new history teacher and a qualified first aider.

Flowerdew came over, closely followed by a staggering, unrecognizable boy, his head down, his mouth covered by his hands. He gave a muffled groan, and Flowerdew turned. The head of science had just enough time to identify Craig Murray before the boy vomited over his immaculately pressed trousers.

Everyone froze for a moment as the contents of Craig's stomach spread slowly towards the teacher's polished shoes. Everyone, that is, except Sam Jennings, who was recording the moment on her phone.

'If I see that on YouTube, Sam,' called Dr Dart, 'I'll know exactly who to see in my office, won't I?'

'Yes, miss,' said a grinning Sam. (When it did indeed appear on YouTube, she claimed her brothers had taken her camera and uploaded the clip against her wishes. No one believed her.)

Flowerdew wiped himself down with his handkerchief and some tissues which Dr Dart had passed over. He was red-cheeked and obviously uncomfortable as the dampness seeped into his trousers, but he spoke calmly.

'Right, well, it's a real mess in there, Felicity – vomit everywhere. Burnham ate a plant, I think, was sick, and then they all started. Everyone is OK now, though—'

'Really? Are you seriously suggesting, with a whole class prostrate, that "everyone is OK"? Now, while we wait for the ambulances, we will need some water. Get as much as you can from the kitchen please.'

For the briefest of moments Dr Dart thought she detected an 'isn't there someone more junior than me?' look, but then he said, 'Of course,' and pulling his damp trousers away from his legs, he jogged off.

Itch and Jack were sitting together; both had finally stopped being ill. The Year Ten girl who had arrived with Flowerdew and Tom Westgate introduced herself as Fiona Cavendish; she gave them both cups of water. Finishing his, Itch got up and offered a hand to Jack, who shook her head and closed her eyes again. He went over to where the head was talking to some of the students.

'Don't know what happened, miss. I just started to feel giddy and I threw up on Matt's head.' This was Timothy Abbott, a rotund, normally cheerful boy. He sounded almost proud of his aim.

'Johnny was sick first, miss, then we all got it,' said Ian Steele.

'I was starting to feel bad before Johnny was sick, miss.'

Dr Dart turned round at that. It was Natalie Hussain. '*Before* Johnny? You felt ill *before*? How long before?'

'About five minutes, miss. Debbie was looking awful, so we leaned on each other for a bit. And that's all I remember. Next thing I was out here.'

Felicity Dart found Debbie Price, who was now propping herself up on her elbows. Jim Littlewood, Dr Flowerdew and some of the catering staff bearing jugs of water were arriving now, along with assorted sixth formers who had been roped in to help.

'Debbie, this is very important,' said Dr Dart. 'Natalie says you both felt ill *before* Johnny Burnham was sick. Is that right?'

'Yes, miss. Well, to be honest, I don't know. I can't remember him being ill – just Debbie told me she felt rubbish too and then we must have passed out.' Natalie took a glass of water and sipped carefully.

Itch was about to add to the story when Dr Dart looked at him and exclaimed, 'Good heavens, Itchingham, you've lost your eyebrows!' She glanced over at the greenhouse. 'What happened in there?' She put one

hand under his chin and lifted his head, exactly as his mother had done last night. Maybe all women did it. 'My goodness, they've gone completely! HAS ANYONE ELSE LOST THEIR EYEBROWS?'

'Er, miss, no – it happened last night. I had, er, an accident at home and they, well . . . they'll grow back, Mum says.' Under other circumstances Itch felt sure he would have been questioned further, but it looked as though Dr Dart had made her mind up about something. She walked over to Miss Glenacre.

'Grace, come and see me when you can face it. Do you have the keys for the greenhouse?' The biology teacher reached into her pocket, produced a fob with two keys on it and handed them to the head. Dr Dart walked over to the greenhouse and looked inside without entering. She called Jim Littlewood and two other members of staff, and between them, with handkerchiefs over their mouths, they reached in and pulled out the bags. They were piled up in a sorry – and in a few instances soggy – heap. She then shut the door and locked it with both keys.

Nathaniel Flowerdew came bustling over, about to question the locking of the greenhouse, but Dart cut him off.

'It's locked and out of bounds to everyone, staff included, until we know what's happened. The ambulances will be here shortly. Come and see me when all the students have been attended to.'

With that she returned to the pupils and escorted two of them back towards the main school.

That afternoon, two ambulances ferried the worst affected pupils to the local hospital. About half of Miss Glenacre's greenhouse class ended up filling the rows of the small outpatients reception. Itch was sitting with Jack and Johnny Burnham, who was still looking the greenest of them all. No one had actually been sick since arriving, but there were a few groaning noises coming from Bruno Paul on the other side of the room. He was sitting with Matt Colston and next to Miss Glenacre, who was still supposedly in charge but had had her eyes shut for ten minutes now.

'I feel OK, really,' said Jack. 'I'm not sure why I'm here.'

‘Well, they did seem keen to bring us in,’ said Itch. ‘They’ve seen Johnny, Natalie and Debbie for tests; they’ll get to us by midnight, I suppose.’

Jack leaned in close. ‘Any theories?’

‘I should have, but no, not really. Some gas given off by one of the plants maybe? There are some pretty weird ones in there.’ He paused. ‘But they’ve been in the greenhouse for ages – that doesn’t make sense.’ He was annoyed with himself.

They looked up at the sound of running footsteps: parents were hurrying along the corridor towards the outpatients. The swing doors burst open as Craig Murray’s mother and Natalie Hussain’s parents burst in. As they looked around the room, Bruno Paul stood up, turned round to face the wall and vomited over the DON’T SWEAR AT THE STAFF poster. This was followed in quick succession by Ian Steele being sick into his cupped hands and Matt Colston being sick on Miss Glenacre, who woke up. Six pupils dashed towards the toilets and three made for the car park.

‘Here we go again,’ said Jack, and she got up.

‘Are you . . . ?’

‘No, I’m just going to help.’ She jogged off in the direction of the toilets, and Itch looked at Johnny Burnham who, remarkably, was eating a packet of prawn cocktail crisps. Nurses and doctors arrived from everywhere, and two porters appeared with mops and buckets.

The flustered receptionist emerged from behind her desk and tried to raise her voice above the moaning, swilling and slopping. No one could hear what she said, so she gave up and sat down again.

It was after five o’clock when Dr Dart emerged from one of the corridors, walking briskly with a senior-looking doctor at her side. She was pale but her face was set and she looked determined. She stood at the front of the outpatients area as though it was one of her classrooms.

‘I am being advised to close the school.’ There were gasps and an outburst of chatter but she put up her hand for silence. ‘Early toxicology tests from the staff here suggest’ – she paused – ‘that the illness was, in some cases, caused by . . . incredible as this seems .

. . a poison gas of some kind. Until they know where it came from, the school is closed for the rest of this week.’

Itch felt his mouth go dry, his stomach tighten and his bowels lurch. He had completely forgotten the packages at the bottom of his bag.

Oh help, he thought. *This is all my fault.*

Chapter 3

Alone in the house, Itch, shaking, peered again at the computer screen and clicked on DELETE HISTORY. It hadn't taken long to find the information he was looking for. A search for 'arsenic gas' had delivered the information he had dreaded.

What Cake hadn't told him about the arsenic in the wallpaper is that on exposure to damp conditions it gave off arsine, a gas which had, over the years, caused many deaths. When he read that, Itch thought again of his teacher and three classmates in hospital. From what the head had said, it didn't sound too serious, but could anyone be sure? When was the last time the hospital had dealt with arsenic poisoning? Had they even identified the arsenic yet? The only thing that was certain was that he was responsible. If he hadn't taken his three packages to school – and one of them in particular – none of this would have happened.