

The Hottest Day at School.



A short story about staying cool at school.

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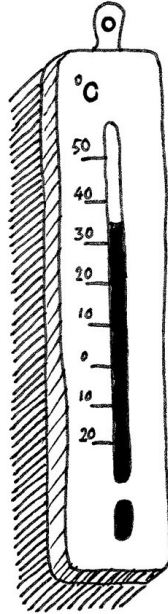
A guide for teachers

The UK is experiencing hotter, drier summers as a result of climate change. This raises the risk of overheating in classrooms, which are often overglazed, low thermal mass structures with compromised ventilation strategies. Children are more vulnerable to overheating than adults and may be reluctant to adapt their behaviour / environment when they experience thermal discomfort in a classroom environment.

This book aims to inform schoolchildren (KS2) on how to maintain their thermal comfort via storytelling. The goal is to encourage them to take personal / environmental behaviours in a classroom environment (remove a jumper, drink more water, request a teacher to open a window, move away from the sunlight, fan themselves) during a heatwave / warm spell.

The story revolves around differing experiences of schoolchildren during a heatwave event, who do / do not adapt their behaviour. It can be read prior to a heatwave or during a hot spell event to make them ready for the event of a heatwave and reduce the likelihood of the risk of heat stress.

The Hottest Day at School



We hope you enjoy this short story about staying cool at school.

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Travelling to School

It was late June, Abby and Finn were walking to school. The sky was a brilliant bright blue and the sun was shining powerfully even at quarter past eight. Mum said there was going to be a heatwave.

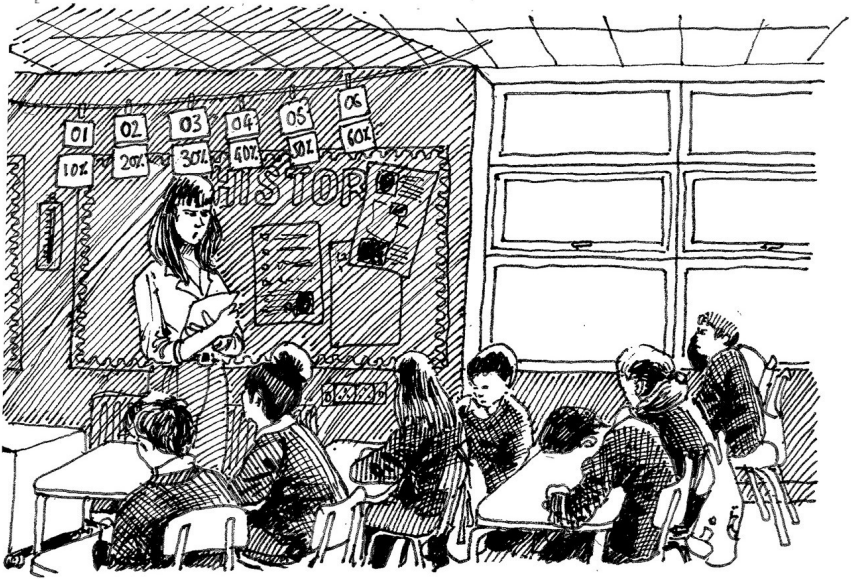
"What does that even mean?" Finn asked.

"Er, that it's going to be extremely hot I guess," said Abby.

Abby felt around in her school bag - aargh, no water bottle. She told Finn she was going to run back home to get it; there was no way she was going to sit through 'History Day' without it. Finn had also forgotten his bottle but unlike Abby couldn't be bothered to go back and get it. That was the problem with his sister, she was always far too perfect.



The History Lesson

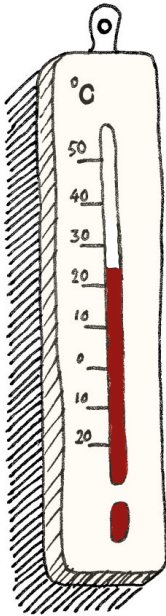


Inside Siberian Tiger class, the temperature didn't feel at all like Siberia. The thermometer on the wall was reading twenty five degrees. Finn was sitting next to Omar in their usual seats, next to the window. The sun was streaming in and it felt really warm and stuffy.

Miss Kopacz was telling the class what they had to do. They had to imagine going back in time and choose a period from history. This would become the setting for their story.

The Fan

Ollie was on the next table and caught his friend Jack's eye. Jack had made a paper fan and was vigorously fanning himself. His friend was struggling not to giggle, but then he had an idea.



The bleached classroom walls turned into sandstone. The trees outside had turned into huge date palms. He was an Egyptian prince in Ancient Egypt. He looked out across his kingdom from the warm palace terrace.

He felt a waft of fresh air across his face. He looked up to see two courtiers had brought out fans. Each fan was taller than a man and made of giant ostrich feathers. The draught on his skin made him feel much more comfortable.

Desert heat was OK so long as you had fans. Such a shame there were not enough ostrich feathers to go round all his subjects!

The Fan

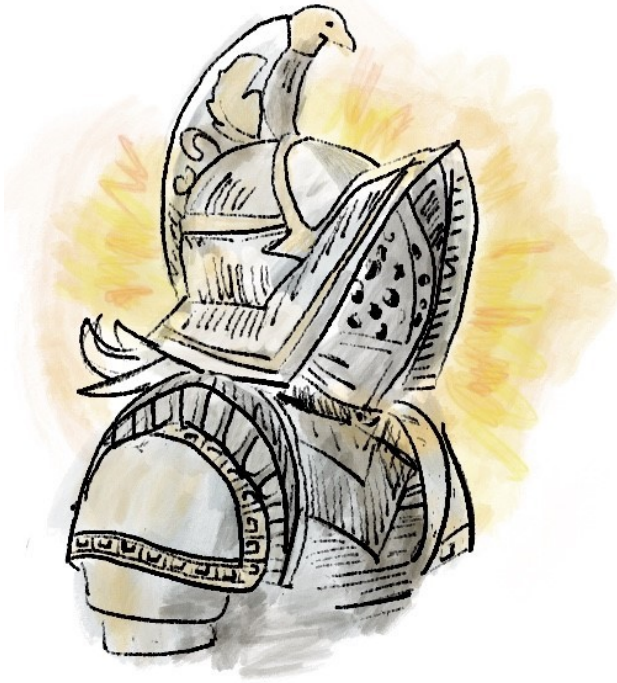


Finn was not thinking about history. Unlike Omar and Jack, he had not made a fan either. This heat was getting unbearable.

The Jumper

Leyla was sitting next to Kali also in a window seat. She was feeling the prickly heat under her collar. She closed her eyes and imagined her clothes becoming heavier and heavier.

She looked down to see that her cardigan had actually turned into heavy golden armour. She was in Ancient Rome practising her combat routine.



The Jumper

All gladiators had to train six hours a day in the heat. The sun was high and the walls of the Colosseum offered little shade. There was no getting around wearing the armour. The metal was hot to the touch and ungainly.



She longed for the practice session to end. She knew it was important to wear the armour, but couldn't help thinking she would be a more effective warrior without it. Finally, the whistle blew and they ran out to the changing tunnel. The heavy breast plate was lifted over her head and replaced with cool white linen. That was much better.

The Jumper

History story sorted Leyla felt confident to put her hand up. "Please Miss Kopacz, please can we take our jumpers off?"

Miss Kopacz agreed that it was a very good idea.

Kali was sat next to Leyla. Despite just wearing her polo shirt it was still too warm. She was used to 'holiday heat' when she was in Spain but that was different because you were on holiday and you could go swimming.

She was having to squint to see the whiteboard. She felt a sudden urge to get out of the sun - it was just too much.

Moving to the Shade

"Please Miss Kopacz, can I move seats?" There was a spare seat in the shade next to Assif. This gave Miss Kopacz a bit of a dilemma. There weren't going to be enough seats for everyone to move. As everyone else seemed pre-occupied, she nodded her approval.

Kali got up very quietly, pushed her chair in without making a noise and moved to the shady part of the room. She closed her eyes.



Moving to the Shade

She was walking through a field of bright golden corn towards a dark green forest. She was in Olde England and she was none other than Maid Marion.

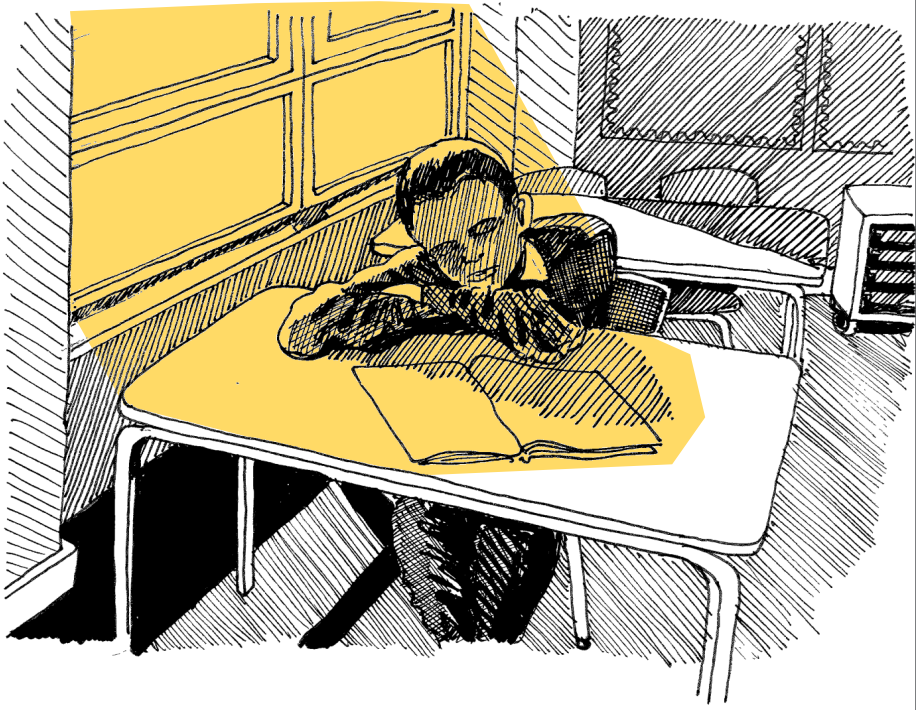


As she stepped underneath the first boughs, the dappled light felt instantly cool and welcoming. She brushed her hand against the tree trunks.

Moving to the Shade

They were encrusted with moss and lichens. She kicked up the mouldy, dark brown leaves on the forest floor. The secret camp was deep within the forest. In her opinion, there was no better place to a) keep cool, b) hide, c) find Robin Hood. History project: sorted!

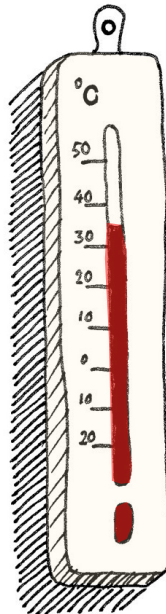
Meanwhile, Finn was still next to the window, no fan, still in his sweatshirt and not in the shade. He was getting really hot now. He couldn't remember what he was supposed to be doing. His eyelids were starting to droop - he felt it was time for a quick nap.



Opening the Windows

On the shady table, Assif had already taken his sweatshirt off. He had also secretly removed his socks and shoes under the table, but he was still too hot. The temperature had been rising all morning. The thermometer on the wall read thirty five degrees.

Assif was scientifically minded; the problem he concluded, was the lack of air movement. The classroom air was still because the windows were usually kept shut. Miss Kopacz suffered from hayfever and didn't like the windows open. But surely this could count as exceptional circumstances?



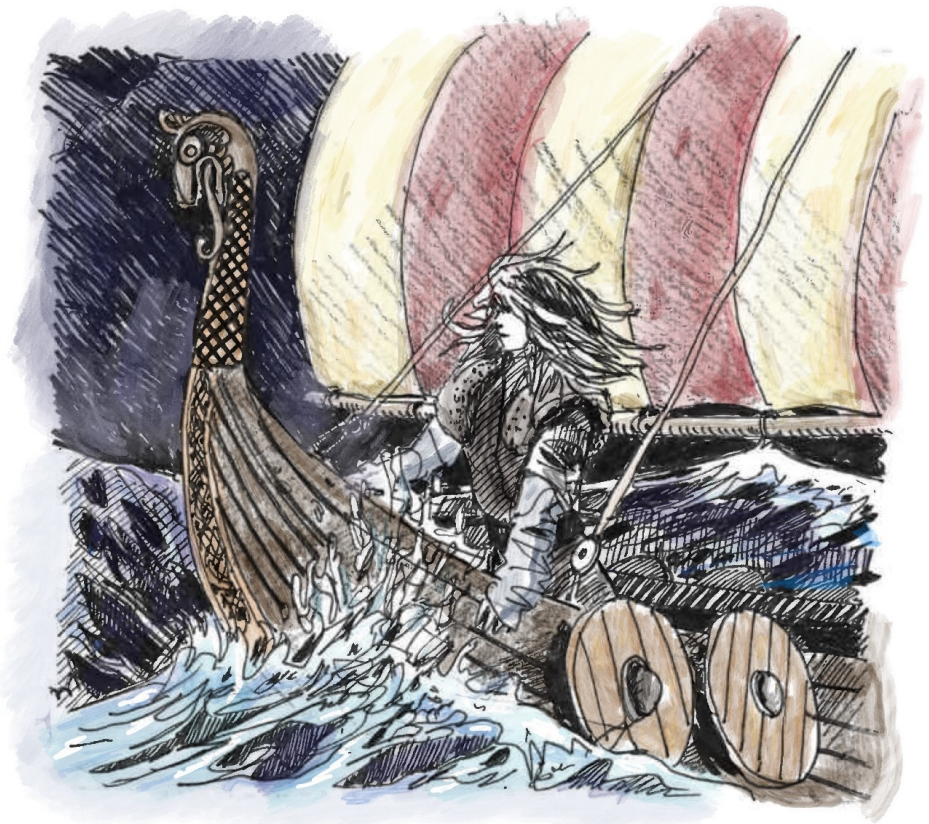
Opening the Windows

" Please Miss Kopacz, can we have the windows open?" Assif pleaded. Miss Kopacz, who was already the colour of a beetroot from the heat, did not take much persuading.

Everyone benefitted from Assif's request to open the window. There was a small cheer as all the windows were opened at last.

Opening the Windows

As the last window opened, Finn closed his eyes. The grey brown brick wall of the playground had turned into the horizon of the North Sea. He was at the helm of a great Viking Ship as it crashed through the waves. They had been waiting for wind and now it came. The squall filled the red and white sail. He felt the salt spray on his face and the wind in his hair. He picked up his sword, sat down on his wooden bench - and began to write his story.



Finding a Drink

Over at the window, a pool of sweat had formed under Finn's head. He woke with a start. He felt dizzy and had a headache. If only he had remembered his water bottle.

On the other side of the room, next to the open door was Abby. She had finished all the water in her bottle and could feel herself getting a headache. She closed her eyes and started her own day dream.

Finding a Drink



She was a cowboy in the Wild West. The land was dry and arid. There was nothing but cacti, sand and dust as far as the eye could see. With the sun at its highest, she drank the last drop of water from her oil skin flask. Her head was throbbing and she felt very strange. She started imagining an oasis in the distance. Was that sunlight on water or was it just a trick of the light?

Finding a Drink

"Abby, Abby!" She woke with a start. Miss Kopacz was standing in front of her desk asking if she was OK? "I think you'd better go and get some water." Abby couldn't agree more. On the plus side at least she had found her story.



Heat Stressed

Finn had woken up but was not feeling at all well. He felt all tingly and flushed like you do when you have the flu. He looked pale and clammy and his skin had gone a blotchy red. He was feeling really sick. All of a sudden, everything went black. He had fallen off his chair onto the floor with a thump.

By the time Finn came round, it was already lunch time. Miss Kopacz had spent a very stressful ten minutes with the headteacher debating whether or not to send for an ambulance. The headteacher said that Finn might have heat stress.

Heat stress occurs when the body cannot get rid of excess heat. When this happens, body temperature rises and the heart beats faster.

After several drinks of water, ice bags and an icepop, Finn felt almost back to normal. He should have definitely gone back for his water bottle.

But that, as they say, was all now history.

Activity Task

Questions about the story

Q1. What was the temperature at the start of the lesson?
.....

Q2. What was the temperature at the end of the lesson?
.....

Q3. What happens when your body gets too hot?
.....

Q4. What did the children do to feel more comfortable?

Name	What did they do to be more comfortable?
Jack	
Leyla	
Kali	
Assif	
Abby	

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This book was produced as part of a research study looking at overheating risk in schools being undertaken by the Energy and Climate Division (energy.soton.ac.uk), University of Southampton.

The study has been approved by the University of Southampton Ethics Committee, ERGO 81907.

The story is written by Michael Chater and Azadeh Montazami.

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Finn is experiencing a very hot day because of the heatwave in his history lesson. Unlike his sister, he did not take any actions to feel cooler during the heat wave. By the end of the history lesson he had heat stress as his body couldn't find any way to get rid of excess heat. His classmates used various techniques such as fanning themselves, removing their jumper, drinking water, asking the teacher to open the window and moving away from the sun to feel comfortable.

