

# Tore and the Town on Thin Ice



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Published in March 2006

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ISBN: 92-807-2696-X

Job Number: DCP/0806/NA

Tore and the Town on Thin Ice is part of the Tunza Environmental Series for Children sponsored by the United Nations Environment Programme (UNEP)

"Tunza" means "to treat with care or affection" in Swahili. UNEP hopes to inspire caring for the Earth through creative literature that sparks the interest and awareness of children, their parents and teachers.

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Printed by Progress Print Limited, Malta

UNEP promotes environmentally friendly practices globally and in its own activities.

Printed on chlorine-free paper made of wood pulp from sustainably managed forests.

## About the Mother of the Sea

In Inuit traditions of Greenland and North America, water animals first sprang from Sea Mother's body. Depending on the region, people also call this goddess at the bottom of the ocean 'Sedna', 'Nuliajuk', or 'Arnarquassaq'.

All the evil and pollution of the world is said to flow to the sea and settle in Sedna's thick hair. The community must send a healer to dive into the deep and comb away the grime. Only then can people and other creatures return to health.

“We’re going to win....We’re going to win!” Tore yelled to his dogs as they sprinted across the frozen river toward the finish line. He had trained with the dogsled all winter, and this race was the last before the finals. But just as his sled was gliding toward the river bank, it crashed through the ice, dumping Tore into the shallow but freezing water.

The watching children laughed. Tore ran home, trying not to cry as his fists clenched in anger.



"But it's ALWAYS frozen solid this time of year," he complained to his parents, "It's not fair!"





"You're right," said Tore's mom, running a warm bath for him. "The ice is changing. We can't rely on it as we used to. Even experienced hunters fall through now. So don't be ashamed."

"But it's not fair. I should have won," Tore insisted.

Tore's dad, maddeningly calm as usual, said, "The question is, what are you going to do about it?"

"I'm never going to sled again!" Tore thundered.



That night, after sleep had finally shut Tore's eyes, he heard a voice.  
"You have a right to be angry, Tore. But use that anger to learn and  
see what you can do."

Tore saw a woman with wrinkles like waves and hair twisted like seaweed.

“I’m the one who created and cares for the sea creatures—whales and walruses, seals and fish. Some call me Sedna, the Mother of the Sea. But I can’t help the sea creatures or the people the way I used to, not alone.”

“This thing is bigger than you know,” she continued.  
“Take your sled to find out more. I’ll send you guides.”

“What can I do? I’m just a kid!” Tore answered.  
But Sedna vanished into the night.



The next morning, Tore harnessed his dogs and set out to learn. He noticed that patches of permafrost—earth that had always been frozen—were thawing, creating holes in the ground.

“Sedna sent me,” someone startled him.







“Yes that’s me,” said a snowy owl high overhead. “I hear you had a little trouble yesterday.”


“You’re supposed to tell me what’s going on around here, not remind me of my problems,” Tore sulked.

The owl swooped to the ground. “The ice melted on the river because the planet’s heating up. The last couple of decades have had the warmest years since people started taking weather measurements. The Poles—here in the Arctic and in Antarctica—are warming almost twice as fast as elsewhere.”

“Then how am I supposed to race dogsleds?”



“Sledding might not be your top worry,” said Snowy Owl. “Lots of things are changing, and fast. Some people who hunt for a living are already going hungry because a lot of seals and walrus are heading north. There isn’t enough sea ice left for them to float on here. All sorts of folks will have to find new ways of making a living.”

A photograph of a snowy mountain landscape. In the foreground, a person is walking away from the camera on a snow-covered path. In the middle ground, a small wooden cabin is visible on a slight rise. The background shows more snow-covered mountains under a pale sky.

“It’s not just river ice and sea ice that’s going, by the way. Nearly all the world’s glaciers are melting. Even the great ice cap here in Greenland—mountains of snow and ice up to about four kilometres thick—is thawing. Until recently, nobody thought we would ever see that.”

“What are we supposed to do? This isn’t supposed to happen!” Tore yelled to the bird. But a hare had distracted Snowy Owl. “Lunchtime”, she said, taking flight.

She pointed with her wing: “Polar Bear’s waiting for you.”

Tore aimed his sled toward the shore. "How's the hunting?" he asked Polar Bear.

"Not great," he replied. "I'm hungry. I need to stand on sea ice to hunt seals—wait and catch them when they come up for breath. But there's not enough ice when I need it. My sister got stranded on the shore last year when the ice went out to sea. She starved."



"I'm sorry to hear that," said Tore. "You look a bit thin yourself."

"I know, and I need fat to make it through the winter. In fact I'm worried about my kind. It looks like within a century there won't be any ice on the water at all in the summer.... We may not have much of a future."

"But polar bears have been here forever," said Tore.

"That's not fair at all!"

"Anyway we're not alone," continued Polar Bear. Our friend the climate—the climate that animals and fish and everybody has depended on for thousands of years—is acting strangely nearly everywhere now. It looks like many, many animals and fish and birds will go extinct—die out—during your lifetime, partly because of changes in climate."

At a loss for words while this information sank in, Tore stared at Polar Bear.

"But don't you worry," Polar Bear mumbled, shuffling away. "I'm sure you people will figure something out."



Suddenly a great fountain of spray burst from the sea and a whale surfaced. Before the whale could speak, Tore snapped, "I know, I know. Sedna sent you."

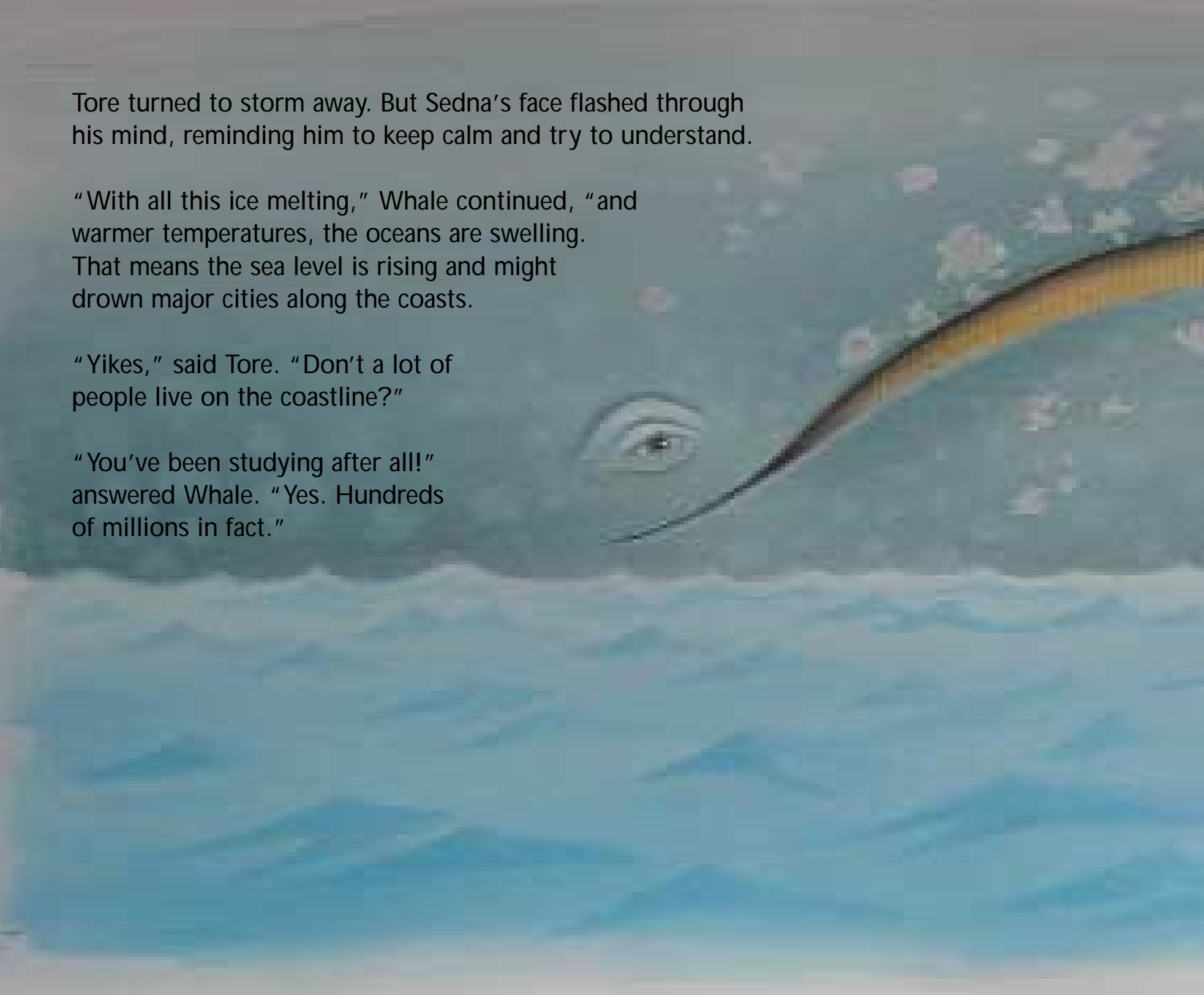
"How'd you guess?" asked Whale.



"Listen, I've had all the bad news I can stand. Our world is melting. Polar bears are starving and all sorts of animals won't survive. I don't want to hear any more!" Tore cried.

"That's the spirit!" said Whale. "Get good and angry. You'll need all that energy to make a difference. I swim around the planet—and I've seen you're not the only folks looking at trouble."



A large blue whale is breaching the ocean surface, its head and eye visible above the water. A vibrant rainbow arches across the sky in the background. The water is a deep blue, and the sky is a lighter blue with some white clouds.

Tore turned to storm away. But Sedna's face flashed through his mind, reminding him to keep calm and try to understand.

"With all this ice melting," Whale continued, "and warmer temperatures, the oceans are swelling. That means the sea level is rising and might drown major cities along the coasts.

"Yikes," said Tore. "Don't a lot of people live on the coastline?"

"You've been studying after all!" answered Whale. "Yes. Hundreds of millions in fact."







“More hurricanes, tornadoes and other things you call ‘natural disasters’ are on their way, too—and they’re getting harsher. Meanwhile, parts of Africa and other places are getting so dry it’s hard to grow food.”

“That’s not all. The ocean currents that swirl around the planet and carry heat with them could actually change direction. If they do, watch out! Great Britain could freeze while the United States bakes.”

“I didn’t realize so much is going on,” said Tore softly. “Is there anything at all a kid like me can do?”

“I thought you’d never ask,” replied Whale as he dipped back into the sea and out of sight.



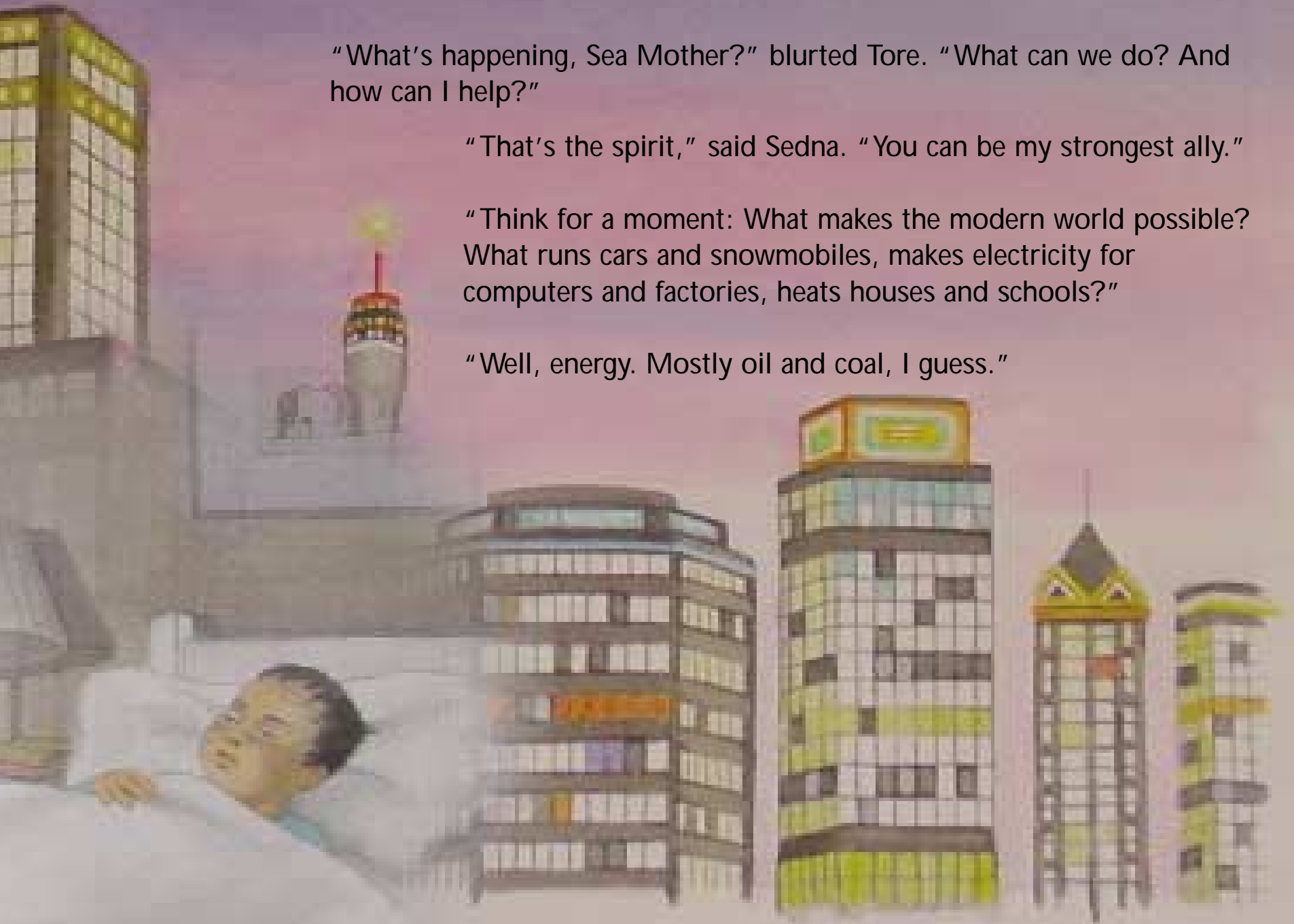
Tore went to bed early that night, his head spinning with the news he'd heard. Soon Sedna appeared.

"What's happening, Sea Mother?" blurted Tore. "What can we do? And how can I help?"


"That's the spirit," said Sedna. "You can be my strongest ally."

"Think for a moment: What makes the modern world possible? What runs cars and snowmobiles, makes electricity for computers and factories, heats houses and schools?"

"Well, energy. Mostly oil and coal, I guess."







“That’s right. They bring a lot of good things, but there’s a price. As fuel burns, it releases carbon dioxide. Clearing forests and burning wood—as people often do in poorer countries—also adds carbon. Carbon dioxide and other gases trap heat from the sun, like a huge blanket. So the planet warms up. Even a few degrees can make a big difference, as you’ve seen.”

“Rich countries use—and waste—an awful lot of energy. Huge cars. Too many cars instead of efficient trains and buses. Lights and machines that take more electricity than necessary. Heaters and air conditioners that run even when they’re not needed....”



“We use oil to make electricity with our generator,” said Tore.  
“We get around on snowmobiles that run on gasoline. Is that part of the problem?”

“A tiny part,” said Sedna. “But if you want to do something, you can start here. Some villages in the Arctic and lots of other places are now setting up solar panels to get electricity from the sun, and modern windmills to capture the energy of the wind.”

“If everybody used clean energy, we might be able to keep the climate from getting a lot worse.”







A week later, Tore and his dogs raced in the Junior Championship. He was determined to win. He had plans for the prize money.

To Tore's delight, his dogs led the sled smoothly around the final bend and past the finish line.

Accepting his medal, Tore thanked the dogs, his parents, the animal guides—and of course, Sedna.

“I’m going to donate this money to buying solar panels and a windmill for our village,” he announced. “We can be a model for the region.”

“I’ll keep racing to raise money for college,” he continued. “I want to learn how everyone can use solar and other clean energy—instead of just being angry that the climate is changing.”

“Our beautiful Earth gives us everything we need as long as we do our part. I’m going to do mine.”



## Some facts and figures on climate change

- 1 Earth's temperature has varied naturally over thousands of years. We know this from studying coral reefs, fossils, growth rings of trees—and the air trapped in ancient ice deep down in Greenland and Antarctica. But the current warming appears to be caused mostly by humans and is unusually rapid.
- 2 The atmosphere now contains about 33 per cent more carbon dioxide, the major heat-trapping gas, than it did 150 years ago. It was then that people started using large amounts of energy to fuel the Industrial Revolution in Europe and North America.
- 3 Europe, Japan and North America burn the most fossil fuels and so have pumped the most carbon into the air. The U.S. alone produces about 25 per cent of the carbon dioxide added by humans.
- 4 The planet's average surface temperature has risen nearly one degree Fahrenheit over the past 30 years, more in regions such as the Arctic. In Alaska, Canada and Russia, permafrost is melting. As frozen ground thaws and softens, roads, pipelines, and hundreds of buildings are being badly damaged.
- 5 Computer models show that over the next 100 years, temperatures will probably rise quite a bit more—as if the planet had a fever. Some places, such as Siberia in northern Russia, may get warmer and easier to farm. But North America's 'breadbasket' will probably grow drier, disrupting farming there.
- 6 Climate change will hit the poorer countries hardest, even though they emit less carbon dioxide. For instance, people in Africa may face more droughts and related famines.
- 7 Sea levels are already rising and are expected to climb another 15 to 95 cm this century. If the enormous ice shelves of Greenland or Antarctica slide into the ocean, sea levels would jump nearly 610 cm (20 ft). Places that could disappear beneath the waves include island nations in the Pacific, much of Bangladesh, Shanghai in China, Lagos in Nigeria, New York in the U.S. and many other coastal cities.
- 8 People are now working to reduce the 'fever'—mostly by using renewable energy instead of fossil fuels. Experts think that by 2030, renewable sources could produce all the electricity we need.

- 9 Today, about 2 million households harness solar energy for electricity to light their houses. Nearly 40 million households use the sun to heat water. Millions more get power from the wind, mostly in Europe, the U.S. and India. Scotland is capturing the power of ocean waves. Iceland is developing hydrogen from water as a major energy source.
- 10 In Brazil, ethanol made from sugar cane has replaced 44 per cent of the country's petrol. Ethanol is in use in China, India, and the U.S. as well. Drivers in many countries can choose to cruise in a car powered largely by battery.
- 11 From Vietnam to Australia, Kenya to Mexico, people are banding together to plant trees. Trees provide shade, wood, nuts, fruit and other products—and can slow climate change by absorbing carbon dioxide.

#### What can you do?

- 1 Plant and care for trees. Join or create an environmental club. You could do an energy 'audit' to explore how your school could save energy and how it might be able to use renewable energy.
- 2 Turn off appliances, heating and air conditioning when you're not using them. Computers and other electronics draw energy even when turned off—so be sure to unplug them, too.
- 3 Recycle papers, bottles and plastic whenever you can. Recycling saves energy compared to using new materials.
- 4 Use your consumer-power. Buying climate-friendly goods—such as energy-efficient light bulbs or electronics—can encourage manufacturers to go green. Less packaging also helps save energy.
- 5 Walk, bicycle or take a train or bus. Only drive in a car if you must. Cars add far more carbon per person to the air than public transport.
- 6 Write to your political leaders. Petition for cleaner cars, better public transport or renewable energy.

