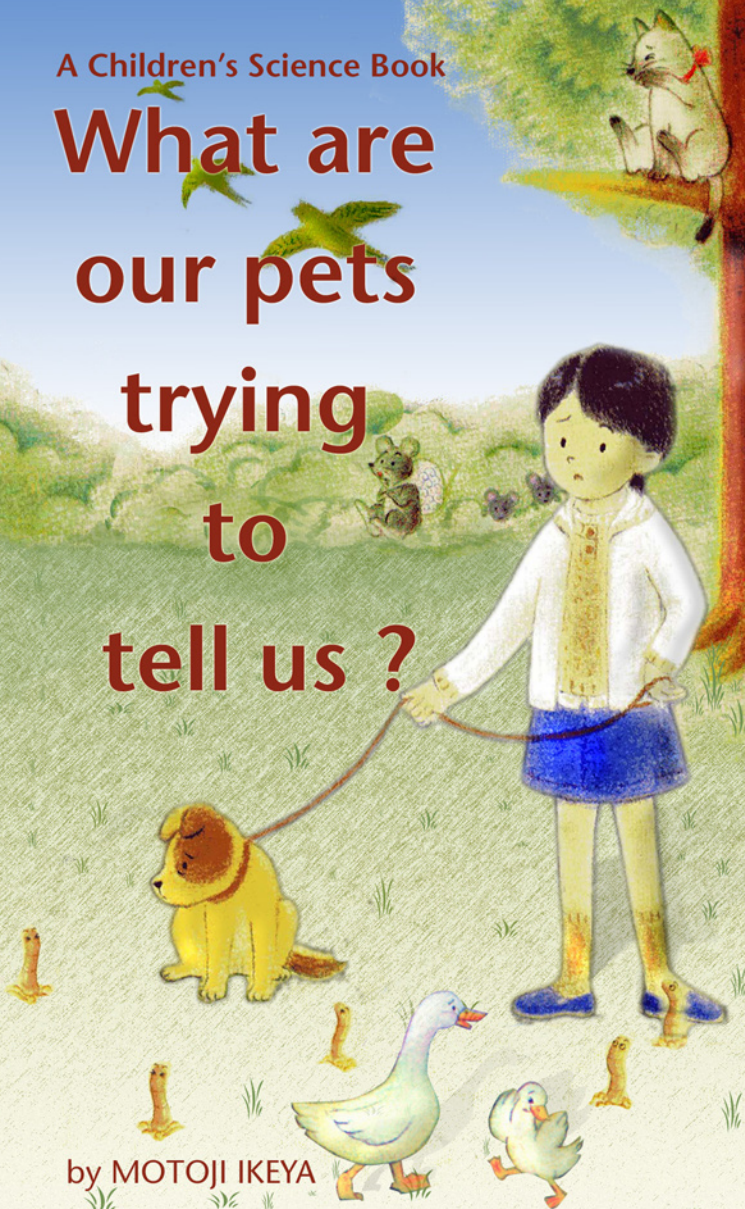


A Children's Science Book

What are our pets trying to tell us ?



by MOTOJI IKEYA

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A CHILDREN'S SCIENCE BOOK

WHAT ARE OUR PETS TRYING TO TELL US?

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This morning Emily
wants to take Spot
for a walk in the park
but Spot doesn't
seem to want to go !



Superstition, imagination or fact?

At the park all the fish in the pond are facing the same way. Some of them are jumping into the air; others have landed outside the pond.

“What’s the matter?” Emily asks the fish as she puts them back in the pond. “You know you can’t breathe out of water.”



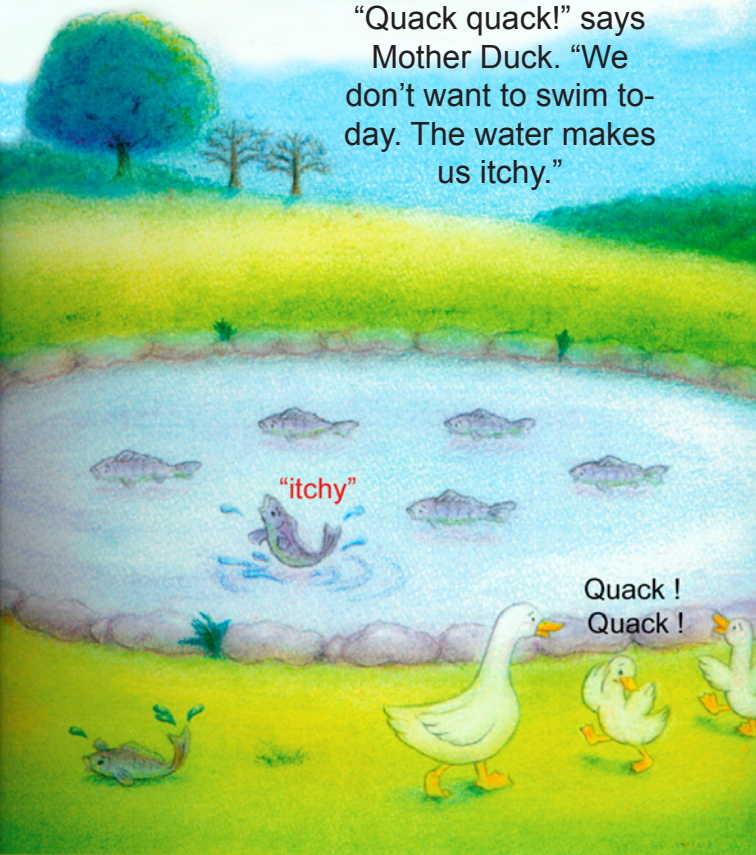
“gasp”



[Behaviour of small fish](#)

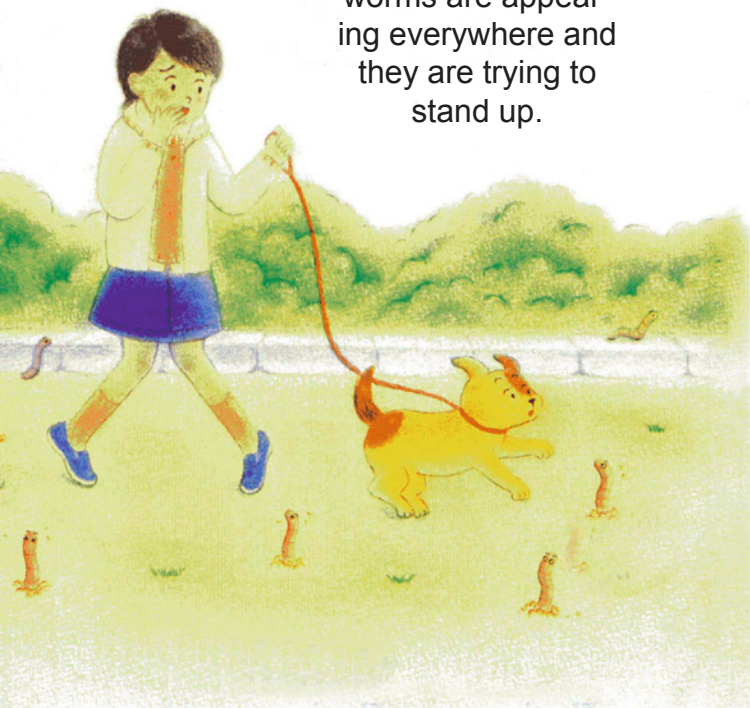
Even the ducks have left the pond and
are fussing about on land.

“Quack quack!” says
Mother Duck. “We
don’t want to swim to-
day. The water makes
us itchy.”



[Marine animal behavior](#)

Spot feels something moving under his paws. Earthworms are appearing everywhere and they are trying to stand up.



“We are itchy from head to tail,”
they tell Spot.

[Swarming earthworms](#)

Emily's cat, Pussy, is sitting high in the tree. She is washing her face all the time. Mother Rat and her children are leaving home.



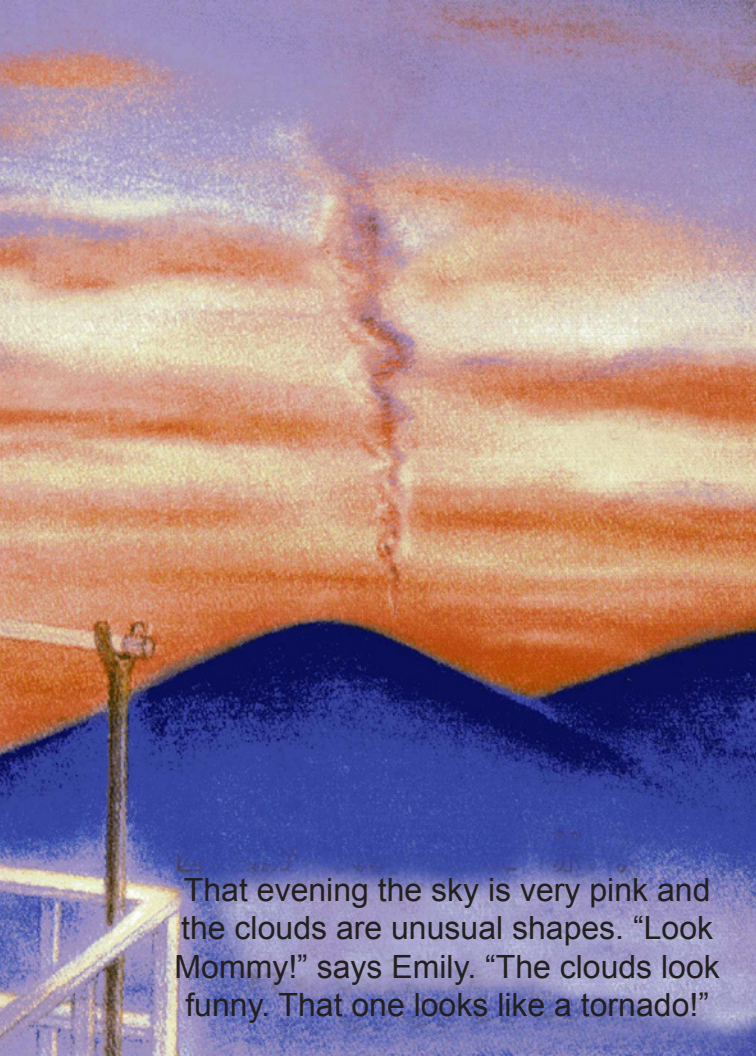
"We can't live here anymore," they say. "Our skins are so itchy". "Let's go home Emily," says Pussy. "My skin is itchy too."

[Cats and rats](#)

Back home Mommy is hanging out the washing. "The animals in the park are behaving strangely today," Emily tells Mommy. "Perhaps they feel like me," says Mommy. "I have a sore head. Maybe I'm getting the flu."



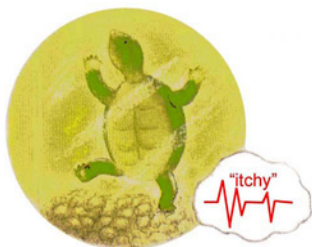
[Do some people sense earthquakes are coming?](#)



That evening the sky is very pink and the clouds are unusual shapes. “Look Mommy!” says Emily. “The clouds look funny. That one looks like a tornado!”

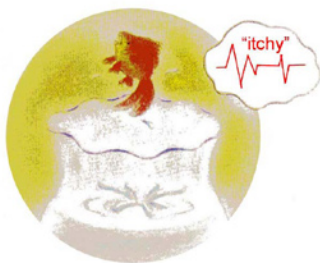
[Earthquake clouds?](#)

Emily goes to her room to see her pets.



Slowcoach,
her pet turtle
has woken up
and is trying
to climb out of
the aquarium.

Steve the
stag beetle
has come out
of his hole.



Goldie the
goldfish is
leaping out
of the water
and making
squeaking
noises.

[Hibernation interrupted](#)

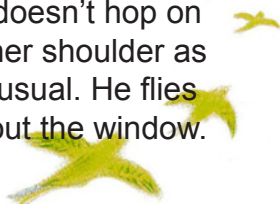
The hamsters,
Ham and
Sam, are busy
washing and
grooming
themselves.
Suddenly Ham
squeaks and
bites Sam.



Chirpy the budgie twitters constantly
and puffs out his feathers, then flies into
the bars of his cage, "Cheep, cheep,
CHEEP!" "What's the matter Chirpy?"
says Emily. "You'll hurt yourself." She
opens the doors of his cage.



But Chirpy
doesn't hop on
her shoulder as
usual. He flies
out the window.



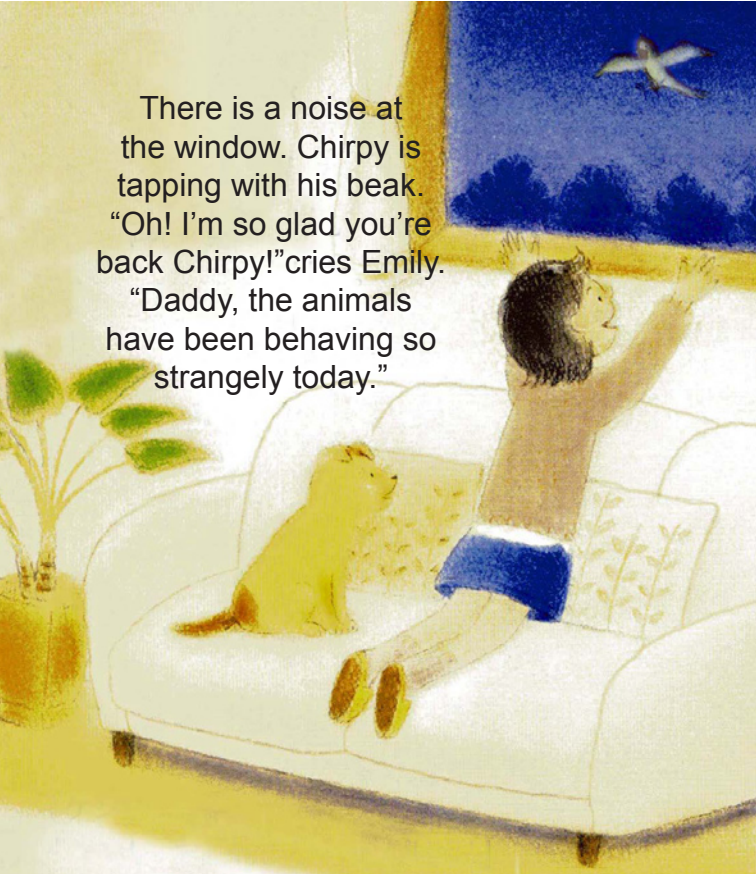
[Small birds and animals agitated](#)



Downstairs Mommy and Daddy are talking. "I tried to call you several times today on the mobile but it wasn't working properly," says Daddy. "That's strange!" says Mommy. "It rang a lot but there was no-one there."

[Malfunctioning mobile phones](#)

There is a noise at the window. Chirpy is tapping with his beak. "Oh! I'm so glad you're back Chirpy!" cries Emily. "Daddy, the animals have been behaving so strangely today."



Perhaps they are trying to tell us something?" "Maybe a thunderstorm is coming," laughs Daddy.

Electric fields are produced by lightning and by rock under strain

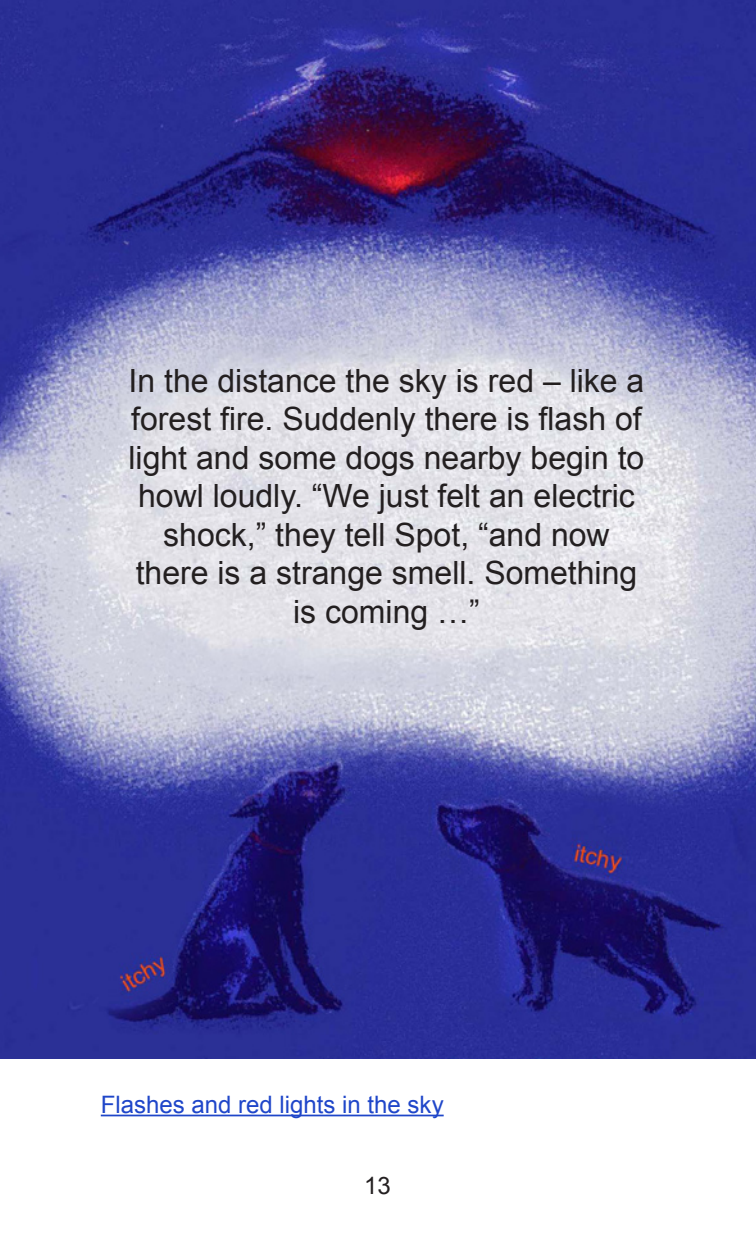
Daddy looks out the window. "Did you notice how bright and close the stars looked last night," he says to Emily.

"Tonight the moon looks long and red."

The moon murmurs to the animals, "I think something is going to happen ..."



[Atmospheric phenomena](#)



In the distance the sky is red – like a forest fire. Suddenly there is flash of light and some dogs nearby begin to howl loudly. “We just felt an electric shock,” they tell Spot, “and now there is a strange smell. Something is coming ...”

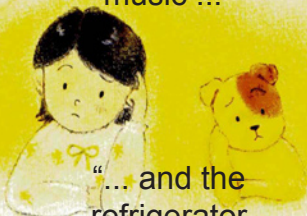
itchy

itchy

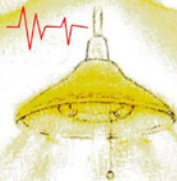
[Flashes and red lights in the sky](#)



The radio reception was bad today," Mommy tells Daddy. "I couldn't hear the music ..."



"... and the refrigerator was switching on and off and making strange noises."



As Mommy talks the room light goes dim. "What's the problem with the TV tonight?" says Daddy. White and coloured lines move across the screen. Then the picture goes a strange shape and suddenly the TV switches channels.

[Electric appliances malfunction](#)



In bed Emily looks at her clock. The second hand stops, then suddenly moves forward very fast.

“Mommy,” says Emily, “the clock is going fast.” But when Mommy looks everything is normal.

“I think you’re just very tired,” Mommy says.

“ No Mommy, really, the clock DID go fast, ”says Emily.

[Erratic hand movements in quartz clocks](#)



Emily falls
asleep and
begins to
dream.



In her dream
the animals
join her.



“Why were you
all behaving
so strangely
today?”
she asks.



“My eyes
were so
itchy,” says
Slowcoach.



“My eyes were sore too, and my skin
was itchy,” says Chirpy.



“My skin was so itchy in
the water that I had to
jump out,” says Goldie
the goldfish.

“I’m sorry I bit you Sam,” says Ham.
“But I was frightened of the itchy,
prickly feeling.”



“What do you mean, ‘itchy, prickly feeling?’” said Emily.

“Don’t you know what a prickly feeling is?” say the animals, surprised.

“It feels like little electric shocks,” says Pussy. “We can feel it in our tongues and eyes and skin and paws. Lightning makes our skins feel prickly and itchy too, so we rub our faces with our paws when a lightning storm is coming.

“Something like lightning is coming, but this time we think it’s bigger than a thunderstorm.”



[Electric field sensors in animals](#)



*"I wash my face
And itchy eyes
Lightning or Monster
What arrives?"*
sings Pussy.

"Tick-tock, tick-tock" says
the quartz clock. "The
prickly feeling stopped my
hands and made them
move fast. The radio and
the TV, the room light,
the refrigerator and the
animals; we all felt the
prickly feeling."



Electric fields precede storms and probably earthquakes

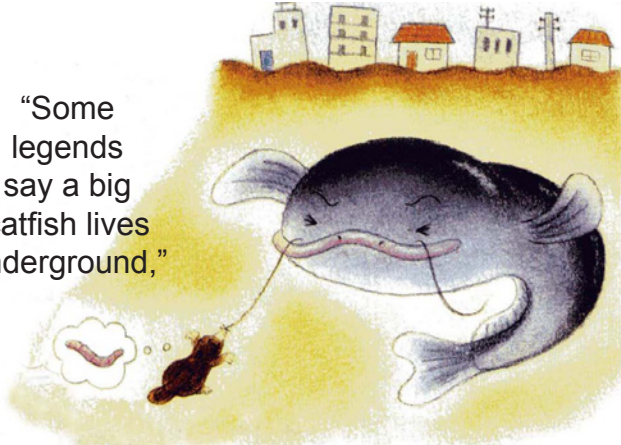
“We all feel it from time to time but this time it’s strong. Maybe a Monster is coming. We shouldn’t be playing, we should be preparing for the Monster.”



“What Monster?” asks Emily.

[Do animals fear a large predator - a “monster”?](#)

“Some legends say a big catfish lives underground,”



says Goldie, red with excitement. “Sometimes it moves and makes the earth shake.”



“Some say it’s a big dragon that comes out of the earth and roars up into the sky, like a tornado cloud.”

[Scientific basis to legends?](#)

“Other legends say it’s a big turtle,” says Slowcoach. “He supports the Earth on his back and when he gets angry the ground shakes, and we all run to high ground because a big wave called a tsunami might come.”

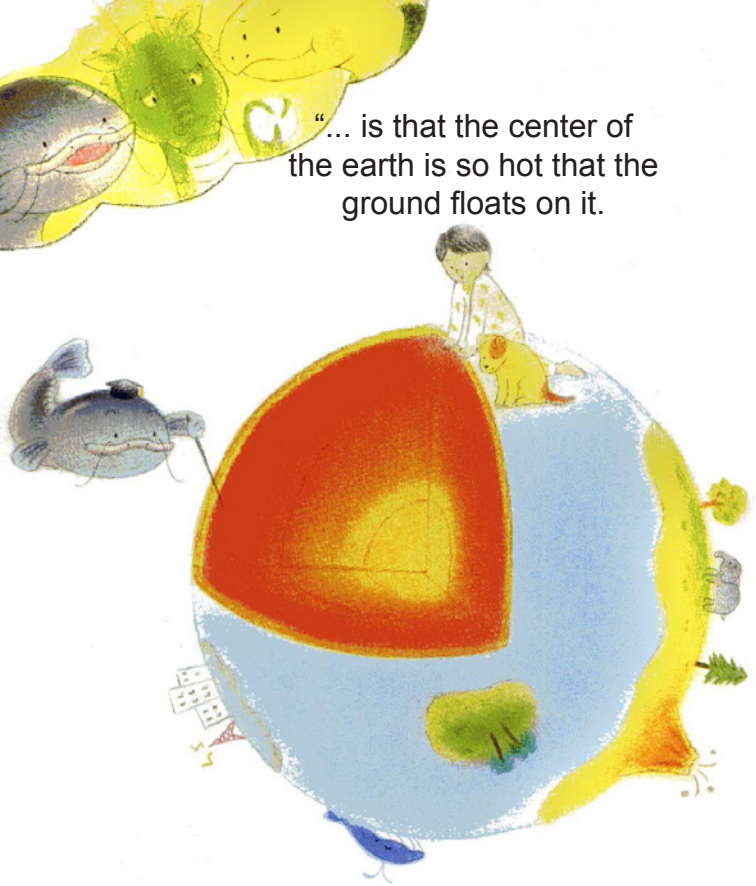


“So, do big animals make the ground shake?” asks Emily.

“No,” say the dragonfish and the catfish, joining Slowcoach. “These are only stories.

What’s really happening ...

[Another animal earthquake legend](#)



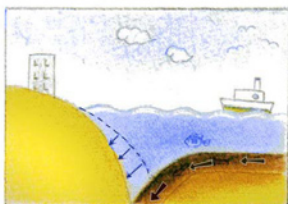
“... is that the center of the earth is so hot that the ground floats on it.

Some bits of ground are pushing so hard against each other bits that they create electricity. Then the ground breaks and moves suddenly. It's called an earthquake.

[The mechanism of an earthquake](#)



“Sometimes ...

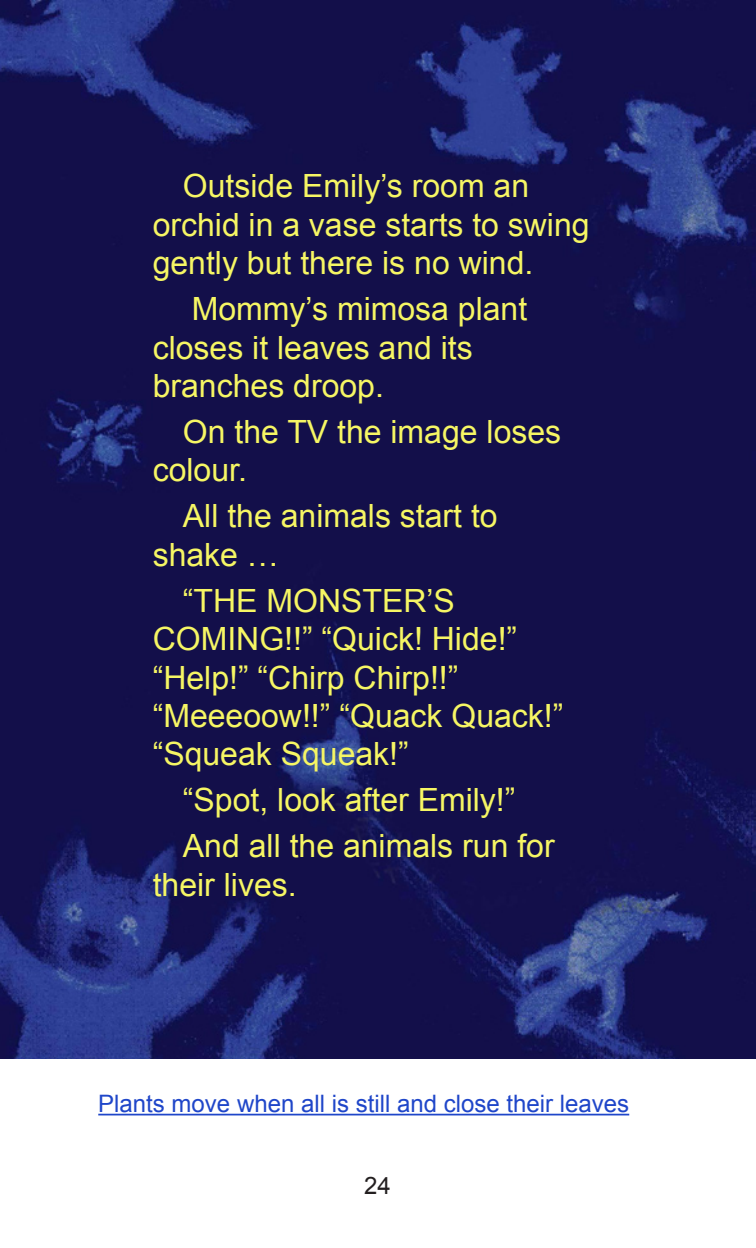


“these
big bits of
ground ...



“... are under the sea. The top bit is forced down by the sliding bit and then bounces back, creating an earthquake and a tsunami.

[Two kinds of earthquakes](#)



Outside Emily's room an orchid in a vase starts to swing gently but there is no wind.

Mommy's mimosa plant closes its leaves and its branches droop.

On the TV the image loses colour.

All the animals start to shake ...

"THE MONSTER'S COMING!!" "Quick! Hide!"
"Help!" "Chirp Chirp!!"
"Meeeoow!!" "Quack Quack!"
"Squeak Squeak!"

"Spot, look after Emily!"

And all the animals run for their lives.

Plants move when all is still and close their leaves

“Where are you all going,” cries Emily.
“I don’t like these games of hide and seek!”

SWING
SWING
SWING!

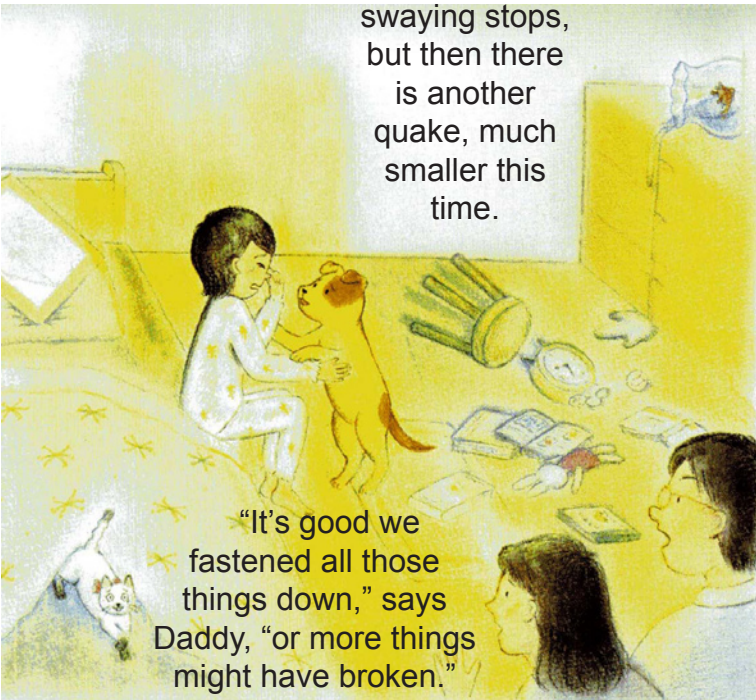
“Oh no,
the Monster,
the
Earthquake!”

Spot is pulling on Emily’s sleeve, “Emily, it’s not safe, get under the bed!”

Groaning sounds, dogs try to protect owners

Something falls to the floor and breaks. "Mommy, Daddy!" cries Emily. "We're here darling," says Mommy. Daddy picks up Emily and they shelter in the doorway.

Soon the swaying stops, but then there is another quake, much smaller this time.

An illustration of a family in a room during an earthquake. A young girl in white pajamas with yellow stars is sitting on the floor, looking up at a small brown dog. A white cat is running towards them. In the background, a green stool is tipped over, and several books are scattered on the floor. A clock and a small red toy are also on the floor. In the foreground, the heads of a man and a woman are visible, looking towards the girl and dog. The room has yellow walls and a yellow floor with small yellow star patterns. A doorway is visible in the background.

"It's good we fastened all those things down," says Daddy, "or more things might have broken."

[Fasten heavy furniture](#)

“See Emily, we are safe!” Daddy tells Emily.

“We have made sure things can’t slide or fall over.



We have an emergency supply of food and water in the knapsack. Look!”



Whistle



Water & food



Batteries



Flashlight



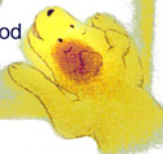
First Aid



Radio



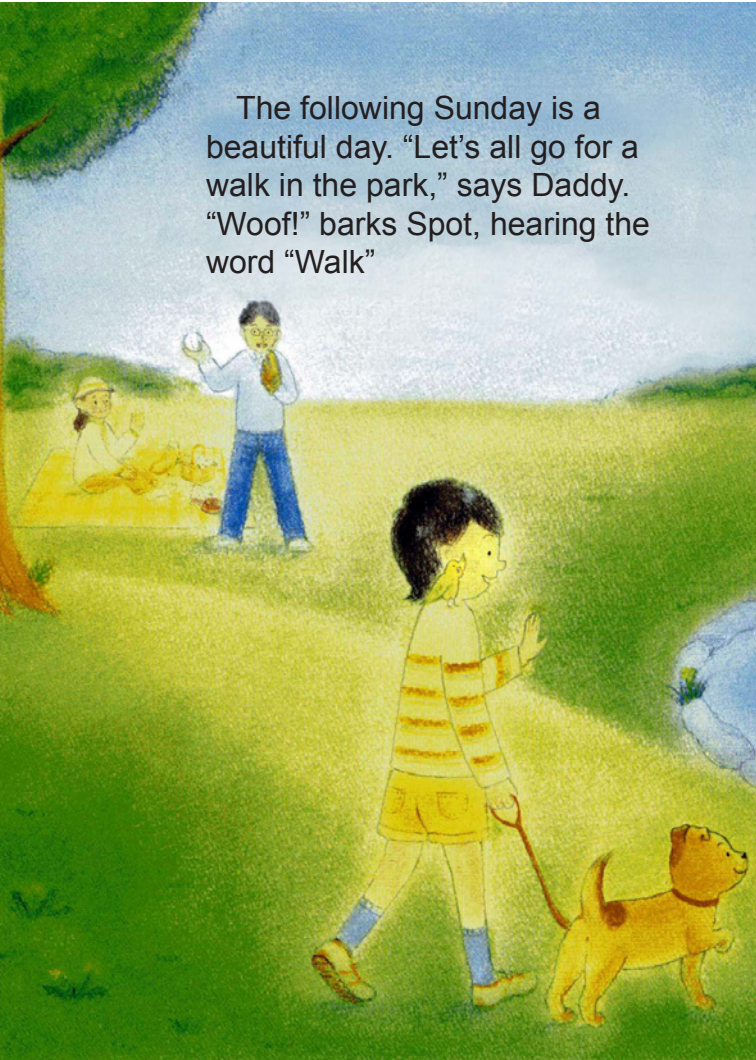
Pet Food



“Woof!” says Spot wagging his tail.
“I can see some cans of pet food.”

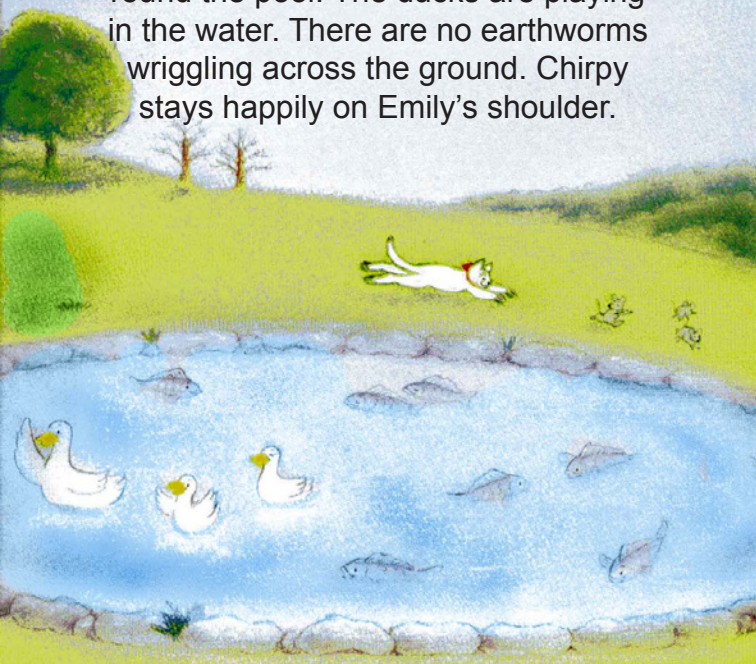
[Prepare an emergency knapsack](#)

The following Sunday is a beautiful day. "Let's all go for a walk in the park," says Daddy. "Woof!" barks Spot, hearing the word "Walk"



[Learn to recognize unusual behavior in pets and local animals](#)

This time everything is different in the park ... the fish are swimming happily round the pool. The ducks are playing in the water. There are no earthworms wriggling across the ground. Chirpy stays happily on Emily's shoulder.



“Quack, Quack! No-one was hurt in the earthquake I hope?” Mother Duck asks Spot. “Thank you for asking,” says Spot. “No-one was hurt. I protected Emily.”

[Earthquake EM waves can explain animal behavior](#)

That night Emily has another dream. She dreams she and the animals are earthquake forecasters.



“Good evening, viewers. This is Emily and her animal assistants bringing you the latest earthquake forecast. There are strong electric fields near San Francisco, Tokyo, Beijing and Istanbul. Make sure your furniture is fastened securely and your earthquake emergency kits are freshly stocked. Be alert for tsunamis.”

“Woof woof!” “Chirp chirp!” agree Spot and Chirpy.

[Earthquake forecasting using EM wave detection is a growing research field](#)