Beaky & Bluey SEE THE LIGHT

...and learn about saving Energy!

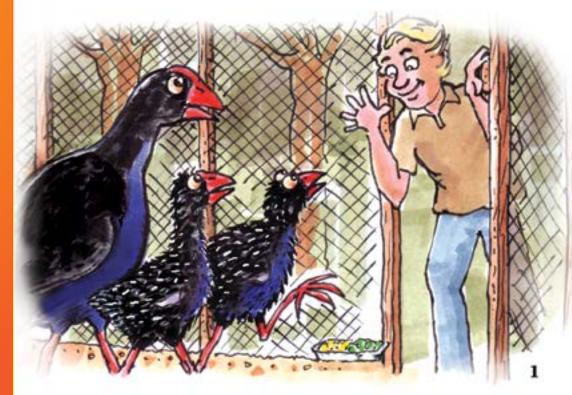
WRITTEN AND ILLUSTRATED BY RICK MCKINLEY

YEAR 1-4

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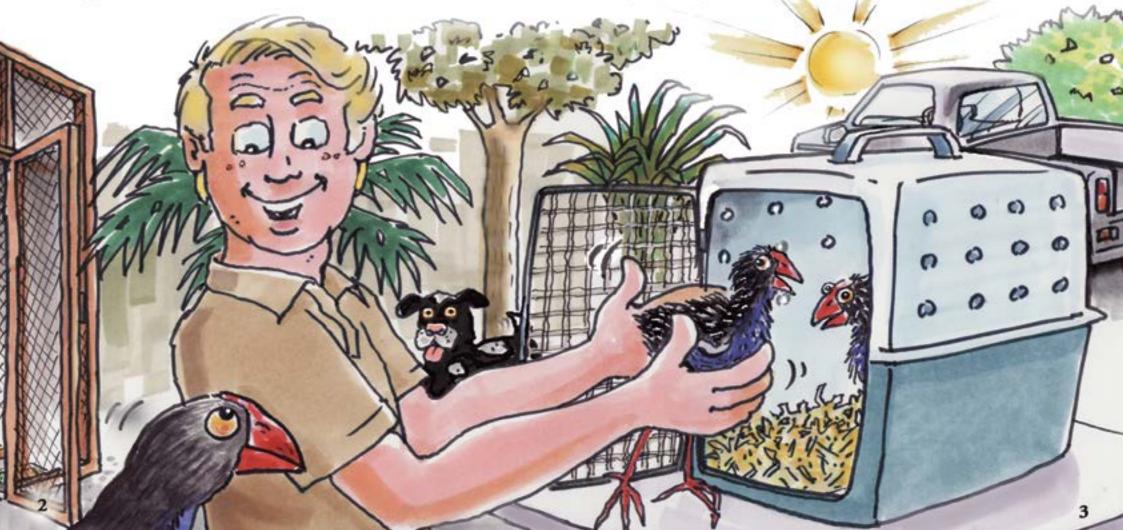
THE SUN was beginning to rise over Mark's small farm. He opened the door of his bird aviary and the pukeko family came running up to meet him. The mother's name was *Ko*, from puke*ko*. Her two young chicks were *Beaky* and *Bluey*. Beaky had a large beak while Bluey had more blue feathers. They liked Mark, because he was kind and fed them well.



"Come on Ko, today I will teach you a trick to do on TV," said Mark.

Mum Ko looked worried. "Oh, we don't have a baby-sitter," she replied.

"The chicks can come along too!" said Mark. Bluey screeched with excitement. "*Cool!*" shrieked Beaky, "you're a *TV star* mum!" Mark gently lifted them into a cage. He was an animal trainer and had to be *very* patient. Mark taught animals to do clever things in movies and TV ads. This always amused his dog Spotty, who went *everywhere* with him.





"Is mum going to do a *magic* trick?" asked Bluey, who was almost buried in hay on the cage floor. "*No!*" laughed Mark as they drove into town. "She has to turn off the lights to save *ENERGY*." "What's *ENERGY?*" inquired Bluey. Mum Ko was quite embarrassed. "Sorry, he does ask a lot of questions," she said. "That's ok, it's *electricity*," said Mark, smiling. "We need electricity to turn on the lights, TV, computers, cook dinner - you name it electricity can heat our hot water too." Spotty was on the back enjoying the ride. "Where does *el-ec-tricity* come from?" asked Beaky as they arrived at a wooden house. "Most electricity in New Zealand comes from *power stations* with *big dams*. They use the power of the *water* from rivers and lakes to make electricity," replied Mark. "This power is called **renewable energy** because the water does not run out. The **sun** and the **wind** are renewable sources of energy, too." He winked and pointed to the sun which felt nice and warm. "Ah, here's Maggie from Genesis Energy..." "Hi!" said Maggie as the fluffy pukeko chicks hopped out of the cage. "You *ARE* cute! Would you like to be in our TV ad too?" "*Really? OH YES PLE-E-EASE!*" shouted Bluey.

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Mark was teaching Ko how to turn off the light with her strong red beak. He held a clicker and clicked it when she was ready to start. Then he gave her a few pieces of corn when she did it right. Ko *loved* corn.

"That's enough practice for today," said Mark. "We'll come back for filming next week."



The chicks were *so* excited. They couldn't wait for the big day. Beaky told all her friends. They called her *Fluffy* the film star! When the day finally arrived, Mark came early again. Spotty was allowed to come too, but only if he 10 stayed on the back of the truck. Beaky checked her feathers were tidy. Bluey was too sleepy to bother. Mum Ko asked what the TV ad was about. "*Energy efficiency*," Mark replied. Ko and the two chicks looked blank. Spotty just yawned.



When they arrived at the house it was **so** busy! People were setting up cameras and huge light stands. Electric leads were on the floor and down the hallway. **12** "Here they are – the *stars* of the show!" called Maggie as she came over to greet them. "Come on, I'll tell you about *energy efficiency*

while they're setting up."



"Energy *eff-ic-iency?*" stuttered Beaky. "What's that Miss Maggie?" "Using energy *wisely*, and *saving* energy... like *turning off the lights* when there is nobody in the room."

They followed Maggie outside where she pointed to the roof.

"Solar panels!" she exclaimed. "They absorb energy from the sun, which is turned into electricity. It's called solar energy. The panels face north because in New Zealand the sun shines mostly from the north. There are solar water heating systems too, to heat our hot water."

"The sun is **renewable** energy, like the wind," said Beaky, remembering what Mark had told them.

WINDFARM

TOTIO

"Exactly! Wind farms make electricity too."

Maggie held up a poster of a windfarm. "I like your hat," said Bluey. Maggie took it off and gave it to him. They burst out laughing as Bluey peered out from under it.

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"This house is made of timber, but *bricks*, *concrete*, and *tiles* are more energy efficient because they *absorb* heat from the sun during the day. This helps us stay warm when the cooler evening comes. The sun's rays warm us up through the *windows* too," said Maggie. 18 They went back inside.

"That's why **insulation** is important," Maggie continued as she picked up a soft, spongy thing. "Sheets of insulation like this are fitted **inside the walls and ceiling**. Insulation helps to **keep heat IN** and keep us warm." "It looks like **candy floss!**" screeched Bluey. Mum Ko frowned at him for being silly.

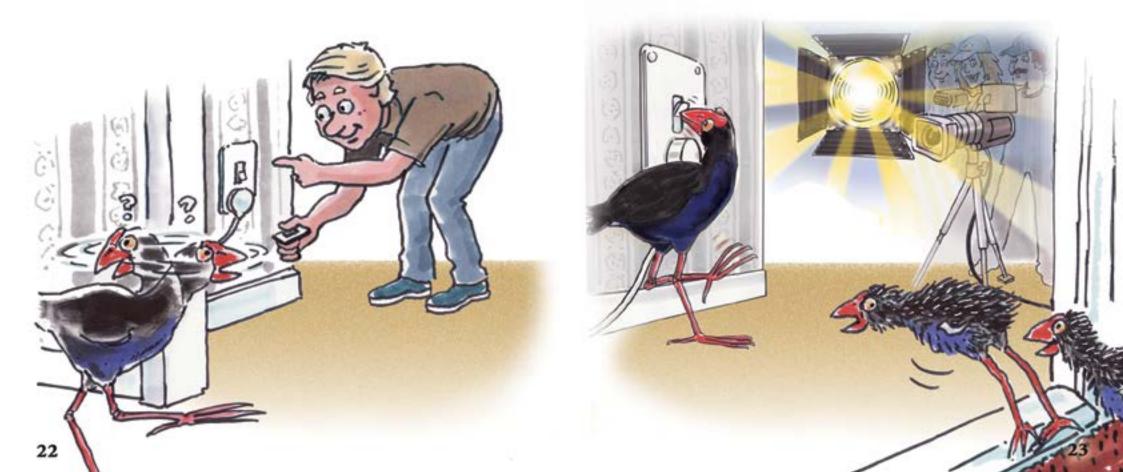


"The sun shines mostly from the **north**. So it's good if the house **faces north**. The rooms we use most should have large windows to let the sun's warmth in," added Maggie. "However, **heat can escape through windows**, so they need their own kind of insulation. It's called **double glazing**."

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"*Curtains* help to keep the sun's warmth in too. We close them at night so we don't need as much energy to heat the room," explained Maggie. "Ok, are you ready?" called Mark. Suddenly Ko became nervous.

"LIGHTS...CAMERA...ACTION!" cried the director. Ko panicked when she heard Mark's clicker. Oh dear, she forgot where the light switch was! Mark gently reminded her. "ACTION!"..."ACTION!"..."ACTION!" ...until Ko finally entered the house and turned off the light switch. The chicks followed awkwardly and Bluey tripped on the doorstep. "*It's a wrap!*" cried the director. Ko looked confused. Mark explained that a '*wrap*' meant the filming was finished, and rewarded her with some corn.

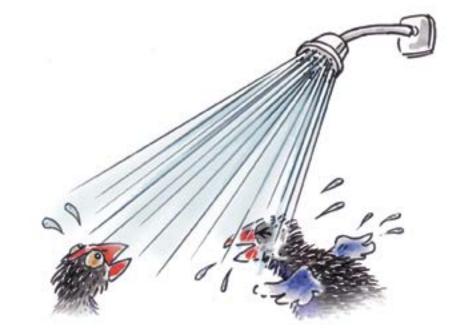




"We see the light Miss Maggie! A twirly thing like a Mr Whippy ice cream!" squawked Beaky. "Ah! That's an **energy efficient light bulb**," said Maggie. "They use a lot less electricity than ordinary bulbs and last longer too. They get warm but not nearly as hot as ordinary bulbs." "LED light bulbs use even less electricity and only get slightly warm," added Maggie. "Look - they have the blue Energy Star label on them," said Mark. "Only the most energy efficient products have that!" "Did I save a *lot* of energy by turning the light off?" asked Ko.

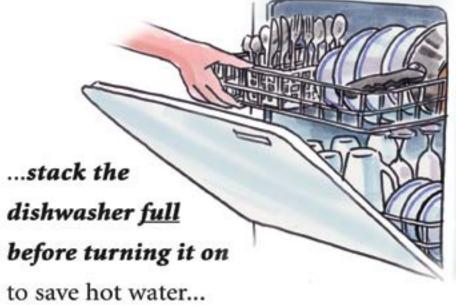
"It's a good start," said Maggie. "Here are some other ways to save energy...

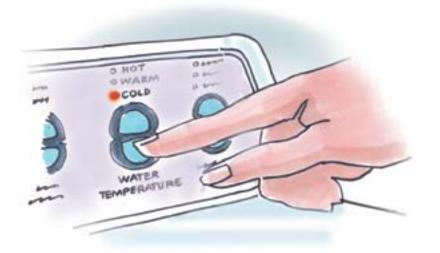




...shower rather than bath, and shower for 4 minutes or less to save hot water...







...wash clothes with cold water

to save hot water...

...**close the fridge** and freezer doors quickly so cold air can't escape...





...use draught stoppers under doors to prevent draughts and stop warm air escaping...

...**use a clothes line** outside instead of a clothes dryer...

...it takes *energy* to heat our homes and hot water -- *we mustn't waste it!*" Bluey was more interested in having *fun*. He pulled at Mark's shoe laces until they were totally undone. He could be *so* naughty sometimes. Mum Ko frowned at him again, but Mark just smiled. "Thanks for making me a *TV star*," said Ko shyly.

"You did SO well that we would love you to do another TV ad!" said Maggie.

"Can I dance next time? Or sing?" asked Ko.

"You will be on the roof of a school, with a *kite*, and a *rugby ball!*" said Mark. *"Rugby?"* Bluey shouted, becoming excited. "Can I play on the *WING?*" Bluey flapped his little wings so fast he lost his balance and fell into a fluffy heap! They laughed and laughed all the way home.



Ha Ha tee hee



Ha Ha Ha!

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A Genesis Energy initiative to bring solar energy and energy efficiency to life for New Zealand schools