# SPCA <br> Kids <br> <br> Kind Matters 

 <br> <br> Kind Matters}

## Kia ora, welcome to SPCA's latest issue of Kind Matters!

It's a brand new school term which means we're here with another pawesome issue of Kind Matters.
This issue of Kind Matters is all about how smart animals are! Companion animals, farmed animals, and animals in the wild all have incredible brains and are capable of both doing and learning so many amazing things. Animals can communicate with each other, problem solve, learn tricks and routines, how to follow instructions or commands, and even how to use items as tools.
Not only does this issue explore the amazing minds of animals, but there are heaps of fun activities, games, and an interesting interview with one of our SPCA Scientists. Keep reading to be blown away by these animal smarts!

## Book Review Competition Winners

Our latest Kind Matters Competition had some amazing animal-themed book review entries, making the judges' job very tough. Choosing just two winners was difficult, but we have our winners. Congratulations to Addison and Anmoldeep. Your book reviews were super interesting, creative, and made us want to read the books right away. Ka pai!

Junior Winner: Addison


Senior Winner: Anmoldeep


A BIG thank you to everyone who entered the Book Review Competition and to our amazing sponsors: Whittakers, Faber-Castell NZ, Whitcoulls, Pics Peanut Butter, Dodoland - Eugy, Nestle Purina, Wheelers, and Mary Egan Publishing.

## What's Inside



## Animal Learning:

Find out about some interesting animal smarts info


Meet an SPCA Scientist:
An interview with Dr. Alison Vaughan


## Bruce the Kea:

Read about Bruce and other wild animals that use tools

## Animal Learning

When you think of learning - what animals do you think of? A dog? A cat? A horse perhaps? What about cows or rats? How about all of the above?
That's right, just like us humans, animals are constantly experiencing the world around them and learning from those experiences. Many animals are also known to respond to training - learning different tricks, behaviours and routines taught to them by humans. Some examples include:

Stella the dog has learned how to "talk" by using specially programmed buttons that say particular words when pressed.


A member of the New Zealand Police has taught their cat, Arnold, to do tricks like jumping through a hoop, as well as respond to commands like sit, down, spin, stay, come, and roll over!


Chaser the border collie has learned the names of 1000 toys and can locate the exact toy when asked!


With reward-based training, rats all over the world have learned to jump into their guardian's hands, complete mini obstacle courses, roll objects, open drawers, and even play basketball!



## Book Nook

Check out some more amazing animal stories with National Geographic Kids!


Title: Best Friends Forever! And More True Stories of Animal Friendships

Author: Amy Shields
A series of four books that explore unexpected animal bonds. In each book you'll meet four unlikely pairings, including Billy and Lilly. Billy the boxer adopted Lilly the goat when she was abandoned by her mother. Billy and Lilly are rarely apart since Billy has taken on the role of Lilly's protector, caretaker, and constant companion.
Ask your parent/guardian or teacher to help you find this book in your school or local library or even online!


Another example that may surprise you is that when using reward-based training, scientists have successfully taught cows to potty in a specific place!

Why you may ask? Toilet training cows may seem like a weird concept to some people, however, there are several benefits, both for the cows and for the planet.
Check out our interview with one of the amazing scientists behind some of the research into cow toilet training to learn more about this fascinating topic!

## Meet an SPCA Scientist: Dr Alison Vaughan

Dr. Alison Vaughan is one of SPCA's scientists that are making a difference to the lives of animals each day. We talked to her about her role at SPCA and her experience toilet training cows - check it out below!

## What is your role at SPCA?

I am a Scientific Officer in SPCA's Animal Welfare Science and Education Team.

## What did you do before joining

 the team at SPCA?After I left secondary school, I went to university and studied hard to achieve a Bachelor of Science (BSc), a Master of Science (MSc) and then a Doctor of Philosophy (PhD) qualifications in Applied Animal Behaviour Science and Welfare. To earn a PhD you have to complete a big research project. My research project focused on finding positive and creative ways to use training to improve animals' lives.

I have worked in research, farm animal welfare and companion animal care jobs in many different countries but when I saw this role advertised I made the decision to move to New Zealand to work as a Scientific Officer with SPCA NZ and haven't looked back since.
How did you become interested in training animals?
I think all children have dreamt of being able to talk to animals. Growing up we lived with many animals and I discovered that training was a tool which can help us to access this super power. Training can be fun for people and animals and strengthens the human-animal bond (my cats love their training sessions! See the photos below). But training is not just for tricks!



We can use training to ask animals to do things which help us to look after them better. Reward-based training allows us to show animals what we need them to do, in a positive way, without using any negative actions, physical force or restraint. This can be training your cat to calmly walk into their carrier for a visit to the vet, voluntary blood draws from zoo animals and, yes, even toilet training cows!

## Toilet training cows?!

Yes, my research looked at whether it was possible to train cows to toilet in a specific area. This is helpful to keep cows clean, reduce risk of disease, and reduce the environmental impact of cattle without restricting their behavioural freedom. We were surprised to find how quickly they learned - one of our training calves understood the task in just one session! Our research was just looking to see if it was possible for them to learn but other researchers have continued to explore this topic to find ways of automatically detecting and rewarding cows for this behaviour and we are getting closer to fully automatic cow toilets!

What was the most exciting moment for you when training cows?
Seeing the 'ah ha' moment when they suddenly understand the task! Research shows that, even when they are standing still, a cow's heart rate gets much faster when their learning performance improves. They often get so excited when they solve a problem they buck and jump for joy.

What do you think surprises people most when it comes to training cows?
Cows are often underestimated so people are usually surprised that they are so clever! We often make assumptions about which animals are and aren't 'trainable'. However, all animals have the potential to learn through reward-based training and there are many ways in which this can be used to improve their welfare.

## What is your favourite thing about working in animal welfare?

Working together with other passionate people to make a positive difference in the world. I love the collaborative nature of the work. There are so many talented, passionate individuals working for SPCA and it is exciting to see what we able to achieve when we work together. The diversity of work satisfies my curiosity and I love doing something that makes a difference.


## Animals and the Tools They Use

The Animal Kingdom is full of incredibly smart animals. In the depths of the ocean, in the middle of the jungle, and on the vast African plains, these animals can be found using their intelligence in unique and fascinating ways.
Have a look at some examples of animals using tools in the wild:

## Crows



New Caledonian crows will use sticks to forage for food - they have even bent sticks into hooks for ease of use!

## Octopuses



Octopuses are the first invertebrates that have been found using tools. While travelling across the ocean floor, they have been seen carrying coconut shells for protection.

## Chimpanzees



Chimpanzees will often use sticks, long pieces of grass, vines, etc. and push them through small holes and spaces in order to "fish" for insects to eat.

## Elephants



Elephants have been observed using sticks to scratch hard to reach itches.


Another fascinating example of an animal using tools has been discovered right here in Aotearoa - and it involves the only species of alpine parrot in the world.

Kea are unique birds, known to be cheeky, smart, and curious, but Bruce the kea has taken his uniqueness and smarts to a whole other level!

When Bruce was only young, he was found missing the upper part of his beak. Fortunately, Bruce was taken to a wildlife hospital to receive the care he needed.

Kea, as well as other birds, use their beaks for several purposes, including breaking food and preening. Preening is when a bird cleans and adjusts their feathers.
This is a natural bird behaviour that is important for their health and happiness.
Though beaks are an important body part for birds, the loss of half his beak has not stopped Bruce from finding ways to express this essential natural behaviour. To preen, 8-yearold Bruce will find the perfect pebble to hold under his tongue so he can
run his feathers through the pebble and his bottom beak to groom himself.

Scientists have watched Bruce search for pebbles that are the correct size and feel. If the pebble is not the right fit, he will drop it and search for another. Because this behaviour is consistent and repeated, scientists believe it is intentional - Bruce has a plan and a purpose for his actions!
According the University of Auckland, this is the very first evidence of a kea using tools for self-care. Bruce is the only kea at the wildlife hospital with this disability, which means he hasn't learned this special pebble preening behaviour from other kea, he figured it out all on his own. These are some seriously incredible problem-solving skills!


Photo © Stuff, University of Auckland


## Nat Geo Wild Animal All-Stars Video

Click to watch this awesome National Geographic video of another super smart kea that demonstrates just how clever these super cool parrots are!

## Activity Time!

Now you've learned all about how super smart our animal friends are, you can practise your own problem solving strategies with these fun puzzles and activities below...

## Maze

Help Bruce find the perfect pebble so he can preen!

## Cheryl's River Crossing Problem

 Cheryl, SPCA's Education Coordinator, wants to cross a river with her three animals. There is a boat that can fit herself plus either the dog, cat or the mouse.If the dog and the cat are alone on one shore, the dog will chase the cat. If the cat and the mouse are alone on the shore, the cat will chase the mouse.
How can Cheryl bring the dog the cat and the mouse across the river?


## Picture Puzzle: How Many Animals Can You See?

Our human brain does a good job of interpreting and processing information received by our eyes. Test out your vision with this fun picture that's been puzzling people on the internet!


## Number Puzzle

What number is each animal representing?


## SPCA Education

## Webinars

Have you heard of our brand new SPCA Education Webinars?

During these fun, exciting, and educational 30 -minute webinars, you will learn about a variety of topics about animal welfare, responsible animal guardianship, and the role SPCA plays in the community!
Ask your teacher to email education@spca.nz for details on how to tune in!

## Want to do more fun animal activities?

## SPCA

## I Spy Scavenger Hunt

Go for a walk around your neighbourhood and/or to your local park with your bubble and play this awesome I Spy Scavenger Hunt game!


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## Activity Time Answer Key

## Cheryl's River Crossing Problem:

1. Take the cat.
2. Return to the shore.
3. Take the mouse.
4. Return with the cat.
5. Take the dog.
6. Return to the shore.
7. Take the cat.

Picture Puzzle:


Maze:


Number Puzzle:

Answer:
Each pukeko = 8;
Each pīwakawaka = 7;
Each eel = 7;
Each wētā = 2

Can you find more?


