

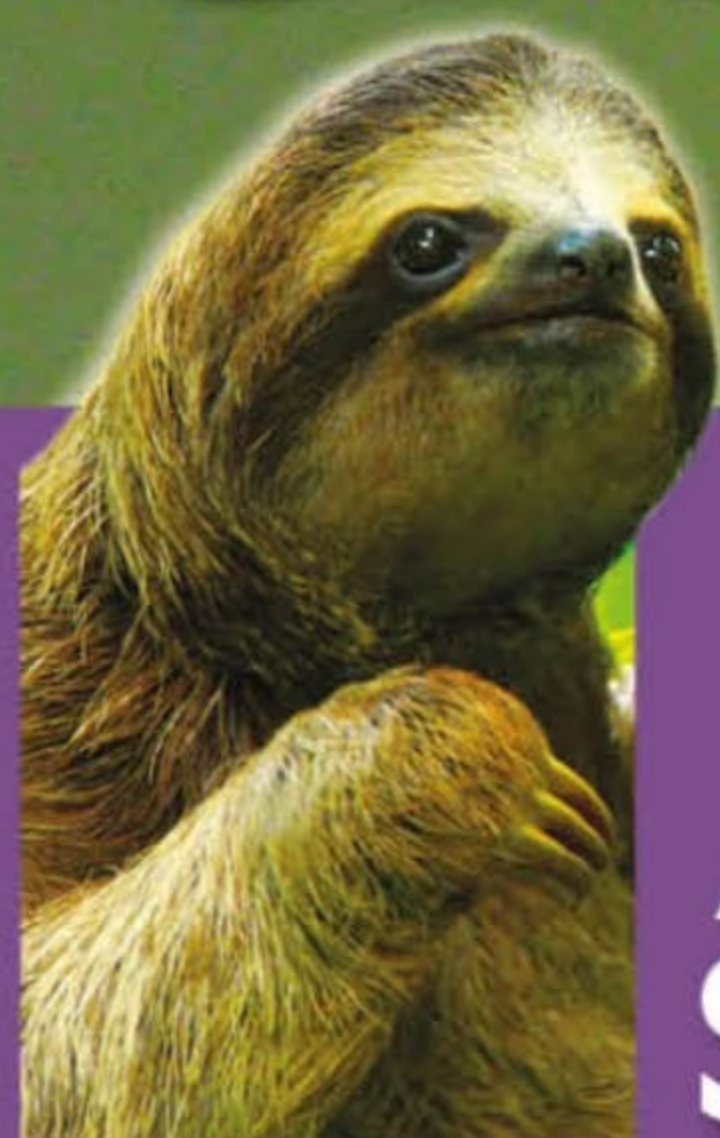


NATIONAL
GEOGRAPHIC

RAINFOREST
SPECIAL!

KIDS

COSTA RICA CREATURES!



ALL
ABOUT
SLOTHS!

30 COOL
CHINA
FACTS!



HISTORY'S
GREATEST
HITS

STEPHEN
HAWKING



DOES YOUR CHILD AND THEIR FRIENDS HAVE WHAT IT TAKES TO BE ASTRONAUTS?

Wall to Wall Productions are looking for teams of 3 children (aged 10-12) to take part in a space travel action adventure gameshow.

Set in the world of astronaut training, the teams will participate in a series of thrilling physical and mental challenges.

One team will triumph and win a remarkable space prize package.

Application Deadline
SUNDAY 29TH MARCH 2020

For more information go to spaceadventurecasting.com

PARENTS MUST APPLY ON BEHALF OF THEIR CHILDREN

Must be 10-12 years of age as of 15th July 2020 and legal residents of the country from which they are applying.
Other eligibility requirements apply.

Hello!

This month, Nat Geo Kids takes a trip to the tropical rainforests of Costa Rica, where we catch a glimpse of some of the cutest, craziest and most colourful creatures in the world! Plus, we investigate the journeys taken by jaguars and learn how their vital travel 'corridors' are being protected.

Also this issue, we find out about one of the world's greatest scientists, Stephen Hawking, and hear from his writer daughter about growing up with a famous dad.

There are all the usual posters, puzzles and prizes to enjoy, too – so get stuck in! See you next month, The NG KiDS team



4 WILD POSTERS!



Write to NG KiDS

Email editorial@ngkids.com.au

Post NG KiDS, PO Box 161, Hornsby NSW 2077 Australia

Website natgeokids.com/au

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What's inside...

10 TRIP TO COSTA RICA! Sloth spotting, wildlife watching and a night safari in the jungle!



16 JAGUAR JOURNEYS Find out how this beautiful wild cat is being protected!



22 CHINA FACTS Thirty top titbits about the world's most populous country!



29 HISTORY'S GREATEST HITS The life of super scientist Stephen Hawking!



34 KNOCK-OUT SHRIMP! Meet the powerful peacock mantis shrimp. Oof!

PLUS!

4 Inside Scoop All the latest news and events from across the globe...

6 What's UP? This month's best movies, books and TV shows!

8 Big Picture What's that spooky sparkle in the sea?

20 Guinness World Records Three more freakish feats!

21 Comic Max the mouse meets Laika, the first dog in space!

24 Global Story Club We've got a gory story for you this issue!

22 Big Interview We chat to science writer Lucy Hawking!

32 Weird But True A selection of utterly outrageous info!

36 Awesome 8 Fabulous parades from around the world!

38 Junior Explorers' Club Readers tell us what they've been up to!

40 By The Numbers How much space junk is in orbit?!

44 Fun Stuff! Four pages of puzzles!

48 Make It! Yummy coconut and orange macaroons!

49 Puzzle Answers Oi, no cheating!

50 Wacky World! There are some crazy things going on out there!

INSIDE SCOOP

The latest news from around the globe...

Pink slugs survive fires!



A population of **rare fluorescent pink slugs** have **survived the fires** that raged through their home on a remote mountaintop in **New South Wales**.

Rangers counted at least **60 Mount Kaputar pink slugs** in **Mount Kaputar National Park** after rainfall stopped the blaze. It's thought they managed to stay alive by retreating into **rock crevices**. Experts hope their food sources – **fungi, moss and mould** – will **grow back** quickly, and slug numbers should recover within **five years**. Sadly the same can't be said for many other Australian species.



These bright pink slugs can grow up to 20cm in length!

A smiling Christina on one of her record-breaking space walks!

Space woman returns!



Record-breaking astronaut **Christina Koch** returned to **Earth** last month, following the **longest single spaceflight by a woman** in history! Christina, from the **USA**, was in orbit on the **International Space Station** for **328 days**, and conducted **six spacewalks** during her mission, including the first three **all-woman spacewalks**.

As well as contributing to **hundreds of experiments** on board – such as **growing greens** in the **ISS laboratory** – Christina will now be studied by **NASA researchers** so they can find out the **effects of long-duration spaceflight** on a woman – handy for future missions to **Mars**. Welcome back, Christina!

Christina lands after 5,248 orbits of the Earth!

Space © NASA/Bill Ingalls. Pink slug © Michael Murphy/NPWS. Illustration © Marek Jagucki. All others © Getty Images UK

3

FAST FACTS!

Earth Hour

On 28 March, join millions of people across the planet and switch off your lights for one hour!

1 **Earth Hour** encourages people to think about the **impact we have** on our **planet**. The **energy** we use, **food** we eat and **transport** we take all impact the **environment**, affecting **wildlife** and **people** alike.

2 Over **12,000 famous monuments** around the world, including the **Sydney Opera House**, the **Eiffel Tower** in Paris, France, and **Buckingham Palace** in London, UK, will be plunged into darkness to show their support!

3 To take part and celebrate our amazing planet, **switch off your lights for 60 minutes at 8:30pm on Saturday 28 March!** To find out more and to make a promise to protect the planet, head to **earthhour.org.au**



Will you switch off to help save the planet?

One-of-a-kind piano smashed!

You know how **upset** you feel when something you **love** gets **broken** – like a treasured **toy** or a **phone**? Well spare a thought for Canadian **pianist Angela Hewitt**, whose beloved **piano** – worth **AUD\$291,000** – was accidentally **smashed by movers**! The virtuoso said the **F278 Fazioli** was her “best friend” and that she was “heartbroken” by the break.

The unique instrument was fitted with **four pedals** rather than the usual three, and maker **Paulo Fazioli** has said he’d never make another one because it was such a pain in the bum to do! “I hope my piano will be happy in **piano heaven**,” said Angela.



Angela and her Fazioli in happier times

Child steals penguin from zoo!

Seven-year-old **April De Ceiver** is in **big trouble** after **smuggling** a baby **gentoo penguin** out of **Twitford Zoo** during a **school trip**!

The naughty girl slipped the bird into her **backpack** during **feeding time**, and travelled all the way **home** without any of her teachers or classmates noticing. Her parents realised **something fishy** was going on after she hurried upstairs, ran a bath and demanded they leave a **plate of tuna** outside the locked door.

The penguin is now safely back at the zoo and security measures are under review. Keepers have declined to press charges, but April is **not allowed pocket money** for a whole year!



An artist's impression of the robbery!

MAKE IT A DATE

What's going on this month?

MAR
25



Manatee Appreciation Day

Celebrate the 'cows of the sea'!

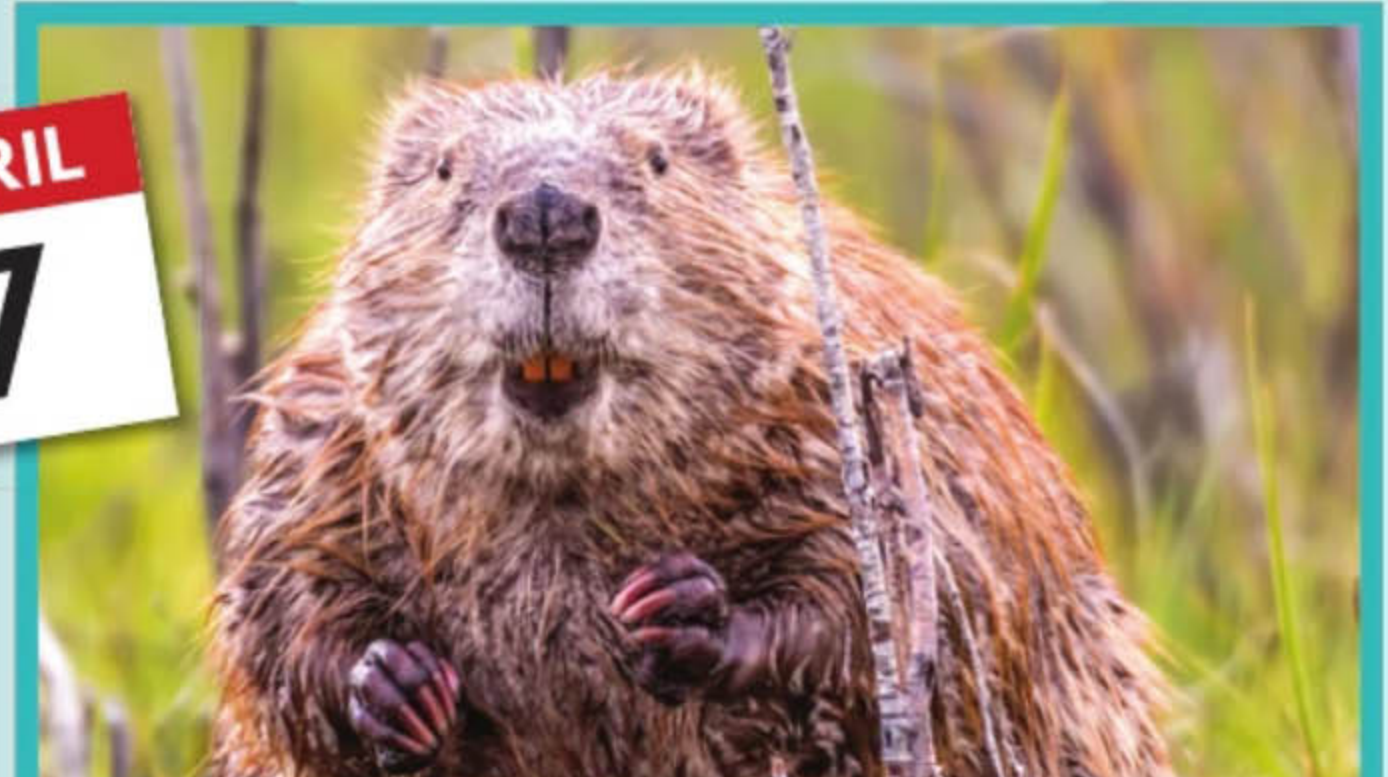
APRIL
1



April Fool's Day

Can you spot the fake story in this issue?!

APRIL
7



International Beaver Day

Find out about these rad rodents!

APRIL
26

Nakizumo crying baby festival

Each April in **Tokyo, Japan**, parents hand over their **babies** to **sumo wrestlers** for a seriously bonkers battle. Two super-sized athletes take to the stage and **dangle** the sprogs in front of each other to see which one **cries first**! If the tiny tots don't tear up right away, the sumos help the waterworks begin by pulling silly faces or making loud noises. The **first baby to bawl** is crowned the winner! If both start weeping at the same time, the one who cries the **loudest** is the champ.

According to tradition, a baby with a **long, loud** cry is said to be a healthy child who'll have a long life. All that wailing is thought to scare off **evil spirits**, too. *Waaaa-ow!*

**CRAZY
EVENT**

APRIL
18-19



Australian Heritage Festival

This year's theme is 'Our Heritage for the Future'!

APRIL
12



Easter Sunday

Yum! Let the egg hunts begin!

WHAT'S UP?

Films, TV and books to get excited about this month...



Onward

Mythical creatures like **centaurs**, **dragons** and **unicorns** are a normal part of everyday life in **Disney** and **Pixar's** new animation **Onward**, but magic has been replaced by **modern technology**. So when **elf Ian** is gifted his late father's **wizard staff** for his birthday, he and his **big bro Barley** have no idea how to use it! They cast a spell to try and **bring their dad back to life**, but it only summons his **legs**. Whoopsy! Can they magic all of him back before the spell runs out?!

● In cinemas 2 April

WIN!

Answer this question at natgeokids.com to win one of five bundles of **Onward** goodies!

Q Which of the following is NOT a mythological creature?

a) Elf b) Unicorn c) Dodo



Can Ian (left) and Barley bring their family back together?!



Peter Rabbit 2: The Runaway

Peter and his animal pals are living in relative harmony with loved-up **humans Thomas** and **Bea** – but the **cheeky rabbit** can't seem to stop getting in **trouble**. So Peter runs off to the city, where his **mischievous side** is **appreciated**!

Will he ever be reunited with his family?

We don't know what English writer **Beatrix Potter** would've made of the **Hollywood** version of her **watercolour wabbit**, but we think it's a lot of fun!

● In cinemas 19 March



Peter's causing trouble again in this action-packed sequel!



Mulan

Ancient China is under attack from the **Huns**. Uh-oh! To defend the country, the **Emperor** announces that one **man** from **every family** must serve in the war. The trouble is, **Hua Zhou** is very **old** and **frail**, and he has **no sons**. So, to save her family, his brave **daughter Mulan** disguises herself as a **male warrior** and goes off to fight.

Expect **gorgeous costumes**, **breathless action**, **awe-inspiring scenery** and just a touch of **magic**.

● In cinemas 26 March



It's mighty Mulan!

Enter ALL comps at
natgeokids.com

KEY



Show



Movie



DVD



Podcast



Book



TV

Mr. Bean

Childish wally **Mr. Bean** is back on TV for more **cartoon antics** with his trusted **Teddy**. Unfortunately for Mr. Bean, his adventures always seem to land him in some sort of **turmoil**. Fortunately for us, they're also always **hilarious** to watch!

In these **new episodes**, Mr. Bean moves in with **Mrs. Wicket** when he suffers a **flea infestation**. Will this unlikely duo be able to **live harmoniously**? We doubt it!

Mr. Bean also enters his **cat Scrapper** into a **beauty contest** so that he can win a trip to **Paris, France**. A-meow-sing stuff!

● **Weekdays at 7:30pm from 16 March on Boomerang**



Monster Beach

Brand-new series **Monster Beach** launches on **Cartoon Network** this **April**, following the frightfully funny adventures of **surf-siblings Jan and Dean** who are on an **endless summer vacation**.

The daring duo have a **terror-ific** time hanging out on the island of **Iki-Iki** with a bunch of thrill-seeking **monster mates**, where they **unravel mysteries**, **stop bad guys** and cruise around in **hopped-up hot rods**. Fun!

● **Weekends at 6:30pm from 11 April on Cartoon Network**



Book Reviews

League of Llamas series

Aleesah Darlison

Get ready for plenty of LOLz with the **LOL** (aka **League of Llamas**). This group of **llama secret agents** are on a mission to save the world – if only **Agent 0011 Phillipe Llama** could **stop looking in the mirror** at his luxurious **fringe**, and **Agent 0013 Lloyd Llananator** could resist the temptation to **eat everything** in his path!

Can the dozy duo foil the evil plans of **General Bottomburrp** and his **badger** henchmen?



Azaria: A True History

Maree Coote

In 1980, a tiny baby named **Azaria Chamberlain** was snatched by a **wild dingo** on a trip to **Uluru**, never to be seen again. But no-one in Australia believed that a dingo would do such a thing, and eventually Azaria's grieving **parents** were accused of **murder**.

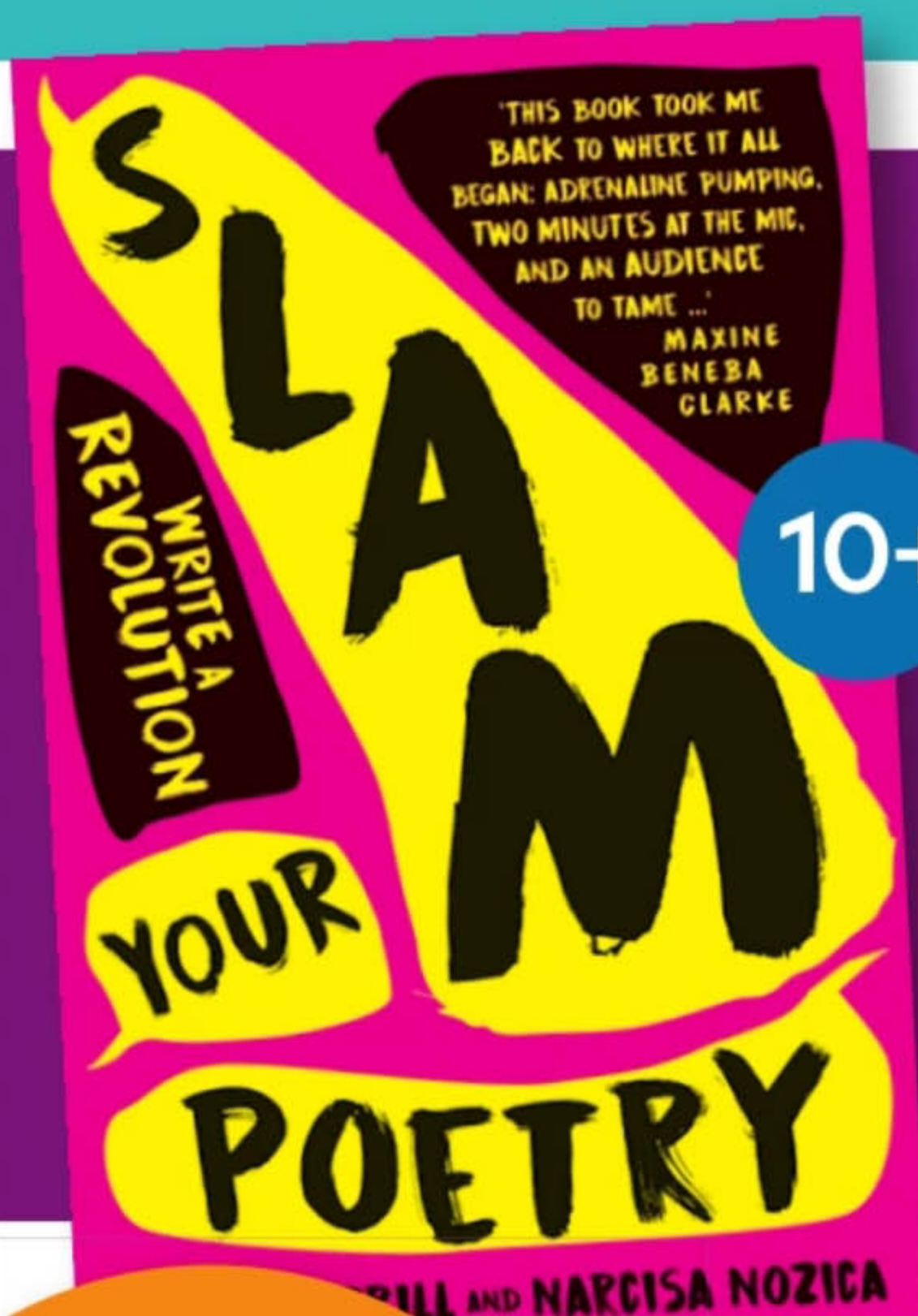
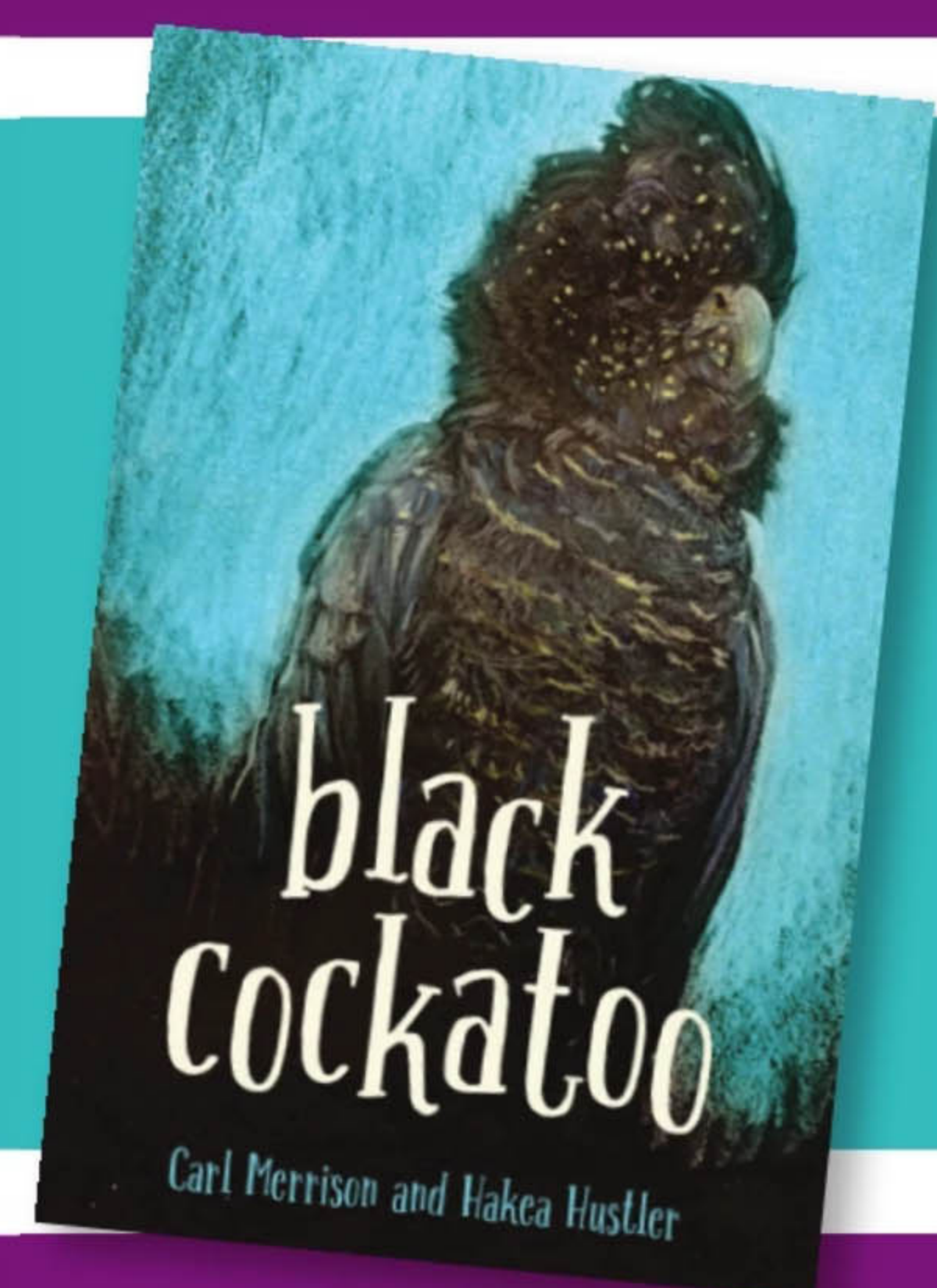
This **beautifully illustrated picture book** about the tragedy will make you think about **justice**, the **media**, **wilderness**, and the perils of **mob thinking**.

Black Cockatoo

Carl Merrison and Hakea Hustler

Mia, a young **Aboriginal girl** from a remote **community** in **Western Australia**, feels lost and **confused** about the **traditions** of her family and her place in the **present day**. But after **rescuing** a **black cockatoo** that's been **injured** by her troubled **older brother**, she begins to discover her **inner strength**.

This short, **heartfelt book** is a brilliant introduction to **Aboriginal culture and customs**.



Slam Your Poetry: Write a Revolution

Miles Merrill, Narcisa Nozica

Poetry Slams are a big deal in Australia – an audience of **two million** watch the **Australian Poetry Slam** every year. Whoa! And, now, thanks to this brilliant guide – part **manifesto**, part **masterclass** – anyone who's ever been interested in **writing poems** can join the **spoken-word revolution**! So what are you waiting for? Save your **thoughts** from **extinction** and learn to get **slamming**!

When writing poems, describe experiences using your **senses**, layering your story with **sights, sounds, smells, taste and touch**.

WIN! Five winners will grab all of these books! Head to natgeokids.com and answer this question...

Q What name did Uluru also used to be known by?
a) Ayers Rock b) Rosetta Stone c) Red Rock

Enter by
23 April!

THE

BIG PICTURE

NAT GEO KIDS'
image of the month



GHOSTLY GLOW



Any idea what's making this seaside snap look so spooky? It's a tiny type of **algae** called *Noctiluca scintillans*, nicknamed **sea sparkle**, which can **glow in the dark**! Australian photographer **Jordan Robins** took the startling picture at **Jervis Bay, New South Wales** in January.

"The algae is **bioluminescent**," explains Jordan, "which means it produces this incredible **bright blue glow** at night when it's disturbed!" (The word 'bioluminescent' comes from the Greek '**bios**' meaning 'life' and the Latin '**lumen**' meaning 'light').

The spectacular ocean light show is rare in Jervis Bay. It occurs just once or twice a year after rain has washed extra **nutrients** into the ocean, causing the algae to bloom. We think it's definitely worth waiting for!



Welcome to

COSTARICA!

Join Nat Geo Kids on a trek through the tropical rainforests of Costa Rica – you won't believe how much wildlife there is!



Hola! This tiny **Central American** country may only be **three quarters** of the size of **Tasmania**, but it contains nearly **half a million animal and plant species** – that's almost **6.5%** of the **world's biodiversity**. Whoa! Check out some of the weird and wonderful wildlife that lives here...



COSTA RICA



GREEN IGUANA

We've only just finished our traditional Costa Rican **breakfast** – **Gallo Pinto** (rice and beans!) – when we spot this mighty male **iguana** sitting in a tree by the side of the road, casually munching **flowers**. The **camouflaged reptiles** have an amazing way of escaping predators. If they feel threatened, they'll make a **death-defying leap** from the **treetops** into **rivers**, before swimming to safety. Splash!



WHITE NOSED COATI

Have you ever seen anything like this adorable animal?! Part of the **raccoon** family, **coatis'** **long snouts** allow them to **forage** for **insects, lizards, fruit** and even **snakes** on the forest floor. Their **tails**, which are almost the same length as their bodies, make them **excellent climbers**, too, and help them **balance**.



BLUE MORPHO BUTTERFLY

With a **wingspan** of up to **20cm** (almost as **wide** as a copy of **NG KiDS!**), this big beauty is one of the **largest butterfly species** in the world. Its **bright blue** colour comes from **microscopic scales** on its wings **reflecting blue light**.



'**Eyespots**' on the **underside** of the **blue morpho's** wings **trick** potential **predators** into thinking it's a **large creature**. Clever!

White nosed coati, butterfly eyespots, red-eyes tree frog and eggs © Gemma Chandler. All others © Getty Images UK.

STRAWBERRY POISON DART FROG

The **noise** of the lush rainforest is incredibly loud. But one sound stands out – we **hear** the **strawberry poison dart frog's high-pitched chirp** from the **undergrowth** long before we see it! The tiny **amphibian** may only be the size of your **thumbprint** but the **toxic poison** it secretes through its **skin** makes it dangerous to potential predators. The **vibrant blue colouring** on its **back legs** has earned it another nickname – the **blue jeans frog**!

Over a **quarter** of **Costa Rica** is **protected land**!



RED-EYED TREE FROG

Recognise this guy?! The famous frog has become a symbol of the rainforest, often used to promote **environmental campaigns**. With its eyes closed the cute **3-cm** amphibian's **green eyelids** help it blend into its forest home. But if disturbed, it **flashes** its **bulging red eyes** to startle predators, giving it time to **hop to safety**. Clever!



Female red-eyed tree frogs **lay their eggs** on the **underside** of **leaves** that **overhang water**. They stick there until the **tadpoles** emerge from the eggs and **drop into the water** below!

YELLOW-THROATED TOUCAN

This beautiful, **brightly coloured bird** is watching us from the branch of a tree as we explore the jungle. The **largest** of **six toucan** species found in **Costa Rica**, its **bill** may look **heavy**, but it's actually surprisingly **light**. It's made of **keratin** – the same stuff your **fingernails** are made of – and is used to **pluck fruit off trees**, **defend** itself and **keep its body cool**!



LESSER VIOLETEAR HUMMINGBIRD

The **smallest birds in the world**, **hummingbirds' wings** beat almost **60 times per second**, allowing them to **hover** in the air as they **sip nectar** from **flowers** with their long tongues. Hummingbirds can also fly **backwards** and **upside down**, helping them visit around **1,000 flowers** per day!

There are over **50 species** of **hummingbird** in **Costa Rica**!

Turn the page to go sloth sightseeing!

SLOTH

spotting

NG KIDS goes on a sloth safari!

With their clever **camouflage** and **super-slow motion**, sloths can be difficult to spot in the wild. But sloth expert, **Albert Vega Ruíz**, gives us some good advice. "Look closely for a **dark, round** shape that has a **different texture** to the surrounding vegetation," he says. "Sloths often snooze in the **joins of tree branches** and can be mistaken for **birds' nests** at first glance." Keeping our eyes peeled on the foliage of a forest in the north-west of the country, it's not long before we spy one high up in the canopy. Here's what we learned about these cute creatures...

Three-toed sloths have **dark mask-like markings** around their **eyes**, and their **curved mouth** gives the impression that they're **always smiling**. All sloths are almost completely **blind** in the **bright sunshine**. Luckily they have a **brilliant sense of smell**!

Sloths are **arboreal**, which means they're perfectly adapted for life in the treetops. They **eat, sleep, mate** and **give birth** up in the canopy. In fact, these mammals only come down to have a **poo once a week**, dumping up to a **third** of their bodyweight on each trip!

Sloths have an **extra bone** in their **neck** that allows them to turn their head almost **270 degrees** – handy for watching out for predators such as **snakes, birds of prey** and **jaguars**!

The **green tinge** in sloths' **fur** is caused by the **algae** and **fungi** that grow there! The sloths don't mind though – it helps **camouflage them** in their lush, leafy habitat.

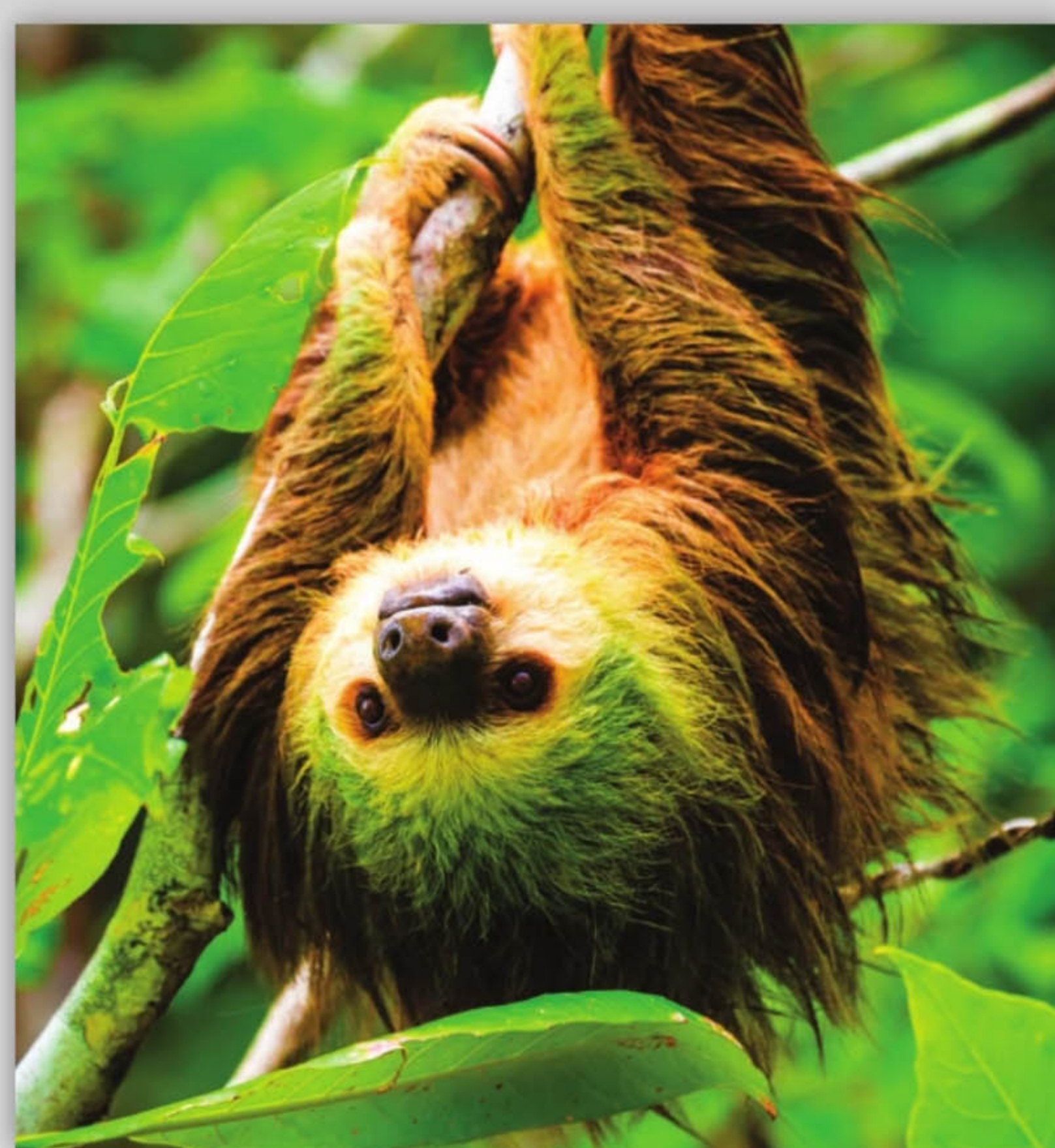
Sloths' fur is also home to other species that feed on algae, such as **sloth moths** and **beetles**. A single sloth can host more than **100 moths** and over **1,000 beetles**!

These sluggish creatures are the **world's slowest mammals**. It takes a **lot of energy** to **digest** their diet of **leaves, shoots** and **fruit**, and so sloths conserve their energy by moving very *s-l-o-w-l-y* and **sleeping** for up to **15 hours a day!**



Although they're **awkward movers** on land, relying on their **long arms** to **drag** themselves along the ground on their **bellies**, sloths are **surprisingly good swimmers!** They can **swim to safety** if they **fall** from trees into **flooded forests**. In fact, they can swim **three times faster** than they travel along the ground!

Sloths give birth to **one baby** at a time. The infants can **cling** onto their mother's fur just **moments after being born**, and depending on the species, can stay with their mum for a **few weeks** or **several years!**



Unlike their three-toed relatives, **ALL two-toed sloths** are mainly **nocturnal**, and have a distinctive **pig-like nose** and **large eyes** (left). Cute, right?! Two-toed sloths are also **larger** than their three-toed cousins, and they **don't** have a **short stubby tail!**

There are **six species** of sloth, split into two groups – **two-toed** or **three-toed**. This guy pictured is a **three-toed sloth**. The name refers to the number of **claws** on each **front foot**.



One poor little **two-toed sloth** we saw had had an unfortunate run-in with a spiky **porcupine**. Ouch!

Turn the page to go on a Costa Rican night safari!

INTO THE DARK

We take a night walk through the Costa Rican cloud forest to meet the strange beasts



We'll be honest – we're a little bit **nervous** about venturing into the jungle in darkness! It's **5:30pm** and the **sun has already gone down** in the **El Establo Mountain Private Reserve**, an **eco-park** set high in the **mountains of**

northwest Costa Rica. It's much **cooler** here than in the **tropical forests below**, and we're wrapped up warm as we trudge up a rocky path to meet our guide, **Rony Castro**. He hands us a torch. "You'll be needing this!" he says...



It's Rony!

ENTER THE GLOOM

Rony's not wrong – it's **pitch black** as we head into the misty jungle, the only light coming from tiny **fireflies** flickering above our heads. We can smell the **damp scent** of the undergrowth and hear the **loud buzz** of **insects**. Rony shines his torch **high into the canopy**, moving the beam of light quickly across the branches. He's watching out for the **reflections of eyes** in the darkness. Soon he spots a fuzzy **bear-like creature** scurry along a branch, its **long tail** stretched out for balance.

"You guys are so lucky!" he says, breathlessly. "That's an endangered **Harris's olingo** – one of the most difficult animals to spot in Costa Rica!" Related to **raccoons**, these shy creatures can release a **stinky smell** from their bottom that frightens off predators. Pooley!



Six species of olingo live in Central and South America

SUPER SPIDER

"Now, who wants to see a **tarantula**?" Rony asks, as the path narrows. "They don't **spin webs**, but live in **burrows** or **inside tree hollows**, **springing out** to **attack unsuspecting prey**!" He points his torch at a **small hole** by the side of the path, and inside, we see the **eight hairy legs** belonging to a huge **orange-kneed**

tarantula – it's as big as a **hand**! Sensing our presence, the hairy creature springs out of its home, **expecting to catch a meal** (right). It's **venomous** and can deliver a **painful bite**, so we stand well back!

MOSS-TERS OF DISGUISE

Rony leads us towards a **moss-covered tree trunk**, shining his light over the **fuzzy green surface**. Suddenly he stops and **beckons us closer**, "Can you see it?!" he asks. We're looking right where he's pointing but there's **nothing there**. "Look again!" Sure enough, **disguised perfectly** among the moss is a **mimic moss stick insect** (below), a ditty little creature whose entire body **exactly resembles** the soft green plants it lives among. "They're almost completely **invisible** to the eye, unless you know what you're looking for," explains Rony. On the same tree, we see a **mimic moss praying mantis**, too – it's **smaller** than a **pinky finger**. These little creatures even **move like moss**, **blowing in the breeze** in a gentle bouncy manner. Amazing!

The tarantula springs into action!



There are about **300,000** species of **insect** in Costa Rica!

The mimic moss stick insect is a master of disguise

Can you spot the mantis in this mossy pic?!

ARK...

asts who emerge after sunset!

WE DON'T BE-LEAF IT!

Another cleverly **camouflaged insect** found here in Costa Rica is the **leaf mimic katydid**, which looks just like a **leaf** that's sprouted **legs** and a **little head**! "Katydid's resemble leaves of all **different colours** and **textures**, from

fresh green ones to **decaying, brown ones**, like this guy," says Rony, as he points out one of the crazy katydids (below). "To make their mimicry even more convincing, some even appear to have '**holes**' or **frayed edges** – no two look the same." Whoa!

It's thought that **katydid's** are named after the **call** some species make, which sounds like "Katy did!"

Katydid's remarkable camouflage protects them from predators

SUPER SCORPION

As we return to the visitor's centre, Rony stops suddenly and **reaches** into one of the building's **gutters**, carefully picking up a **baby Central American bark scorpion**. Growing up to **8cm** long, they can deliver a **painful sting** that causes swelling and tingling – but they're **not deadly**. Phew! He shines a special **ultra-violet** light on the creature – and it **glows** (left)! Scientists know that a molecule in their **exoskeleton** glows under UV light, but **why** exactly this happens is still a mystery – it's a suitably spooky ending to our exciting night safari!

Watch out for this titchy terror!




CLOUD FOREST

FACTS

- **Cloud forests** are a type of rainforest found in **mountainous areas**.
- They're almost constantly covered by a layer of **cloud** due to their **high altitude**.
- The cloud cover causes **dark, damp** conditions and **cool temperatures**, creating a **unique ecosystem** that's rich in **wildlife**.
- About **50%** of the **fauna** (animals) and **flora** (plants) in **Costa Rica** are found in its cloud forests.

Nat Geo Kids travelled to **Costa Rica** courtesy of the **Costa Rica Tourism Board**. We toured the country with **Travel Excellence**, went **sloth sightseeing** with **Ecoterra Expeditions** and enjoyed a **guided night walk** in the **Monteverde Cloud Forest Reserve** at **El Establo Mountain Hotel**. Find out more at visitcostarica.com

Rony, tarantula, mantis, stick insect, katydid and scorpion © Gemma Chandler. All others © Getty Images UK.



A jaguar's **eyesight** is nearly **seven** times better than a human's at **night**, helping the cat **stalk prey** in the dark.

Journey of the JAGUAR

These spotted cats
are on the move
to find new homes...



Jaguars are
are excellent
swimmers!



A young jaguar swims across a muddy river, his spotted coat barely visible above the water. The wild cat's eyes focus on a tasty **crocodile** sunning itself on a nearby bank. Once he's close enough to the shore, the jaguar **springs** and kills the reptile with **one bite**. This big lunch will give the cat fuel for a **journey** he's about to begin – **the search for a mate**.

Because of **habitat loss**, the route this jaguar needs to take is a **dangerous** one, leading the cat away from the **dense jungle** and out into **open land, closer to humans**.

To help jaguars safely make this journey, **scientists** are creating a **network of linked territories** running through **18 countries** and **two continents**. The goal is to **stop jaguar numbers from declining** by protecting the cats' massive range, which is nearly **10.5 million km²**.

SHRINKING HABITAT

North and South America's biggest cat once prowled, climbed and swam through more than **18 million km²** stretching from **southwestern USA**, through **Mexico** and **Central America**, and well into **Argentina**. But in the past century, the jaguar's territory has been cut down by almost half to make way for **cattle ranches, farms and cities**. Few jaguars are now seen in the USA, and the southern range barely extends into **Argentina**. The big cats are extinct in **El Salvador** and **Uruguay**, South America.

"Because of development by humans, populations of the cats have been **cut off** from each other," says **John Polisar**, a **jaguar expert** from the **Wildlife Conservation Society**. "The separation of these scattered pockets of jaguars means **fewer mates will meet** – and **fewer cubs will be born** each year."

BIG-CAT HIGHWAY

Jaguars are **solitary** creatures, with males often trekking up to **160km** to find a **mate**. So it's not enough to simply protect the **pockets of land** that the cats settle in – called **Jaguar Conservation Units**. Scientists also need to safeguard the '**corridors**' that **connect them**, stretches of land that make up a kind of **jaguar superhighway**. These corridors can be



as **narrow** as a **line of trees along a fence** or more than **40km wide!**

Unfortunately, much of the big cats' rainforest habitat has been **cleared**, and with a lack of **trees, shrubs** and **grass** to **hide in**, jaguars are **less likely to travel** along these corridors. Those that do are putting themselves in **danger**.

So how exactly are scientists working to preserve the jaguar's mega-important **highway** – and the majestic big cat's **entire range**?

AR

Turn the page to find out
more about jaguars...

A jaguar's bite has so much force that it can slice through bone!



A jaguar stalks prey in Brazil's Cuiabá River

MAKING CONNECTIONS

Wildlife groups, governments and, most importantly, **local communities** have joined forces to create an organisation called the **Jaguar Corridor Initiative (JCI)**. About ten years ago, the JCI sent scientists to visit **14 countries** inhabited by jaguars to pinpoint **exactly where the big cats lived**.

"We needed to identify which corridors the animals used **most**," says **Roberto Salom**, **Costa Rica's** programme director for **Panthera**, an organisation that works to **protect wild cats**. "By focusing on the **most threatened** areas – such as **Nicaragua**, a country in **Central America** where forests were being cut down at a high rate – we figured out which countries to focus on first." And it worked! Soon many local communities had put **protections in place** along the various corridors.

HOME ON THE RANCH

The jaguar we're following slinks out of the dense **Amazon rainforest** not far from a **field of cattle**. In the **past**, the big cat might have **tried to eat** the **easy prey**, which would have made it a target for **ranchers** protecting their herd. But the jaguar moves on *without* attacking.

That's because ranchers from most of the jaguar's 18 range countries have agreed to help **keep the cats safe**! They now keep their cattle **fenced in at night** so they don't wander off and **tempt the cats** with an easy meal.


"If a jaguar can't see the livestock, it's not likely to hunt it," Roberto says. The ranchers have also placed **flashing lights close to livestock enclosures** to scare the cats into staying away from the property. Which is great news for the cats – and the cattle!

"Jaguars are part of the ranchers' **culture** out here," Roberto says. "Ranchers *want* to work with us, and that has made a really big difference."

Jaguar Conservation Units: Protected areas of land where jaguars can live and safely raise cubs.

Jaguar Corridors: Stretches of land that connect one Jaguar Conservation Unit to another. Jaguars travel on these corridors to get to protected land.

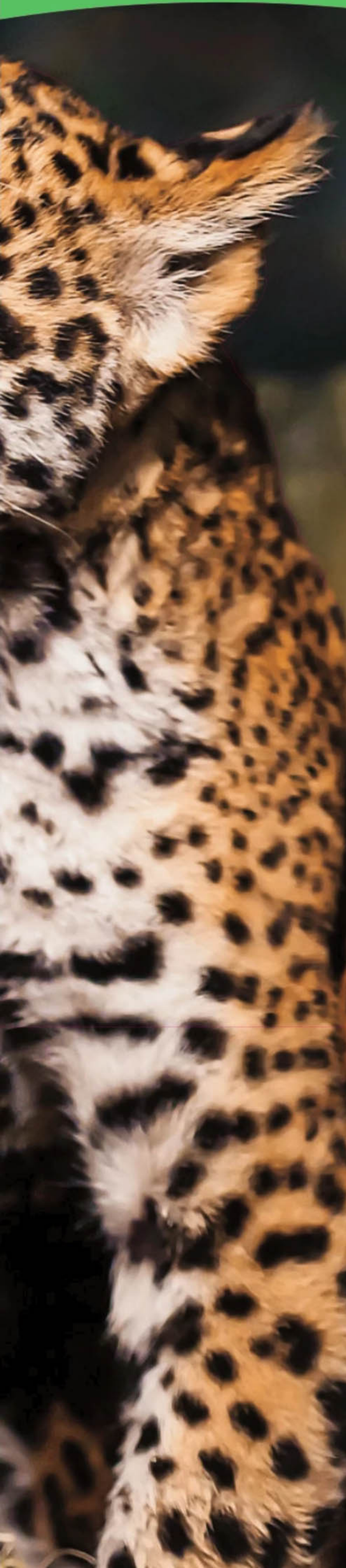




A jaguar's spots are called **rosettes** because they're shaped like **roses**.

SAFE PASSAGE

The young male jaguar's journey is almost over. He's **safely made it across farmland** and **past dozens of villages**. In the distance, he spots the edge of an **unfamiliar forest**. He dashes past cattle – all fenced in – and doesn't stop until he **reaches the trees**.



Jaguar mums typically give birth to **2–4 cubs** at a time.

Soon the cat smells something new. A pair of eyes peers out at him. He tenses, ready to claim the territory from another male. But it's a **female**! At last, thanks to the JCI's efforts, this pair of **potential mates** is about to meet – and a **new generation** of jaguars may be born. "The jaguar is an incredibly **adaptable species**," says Roberto. "But they still need **our help** to survive."



GUINNESS

World Records



I could do this all day!

ONE-FINGER PUSH-UPS



Managing **41 push-ups** in **30 seconds** is **impressive**. But doing 41 push-ups in 30 seconds on just **one finger**? That's mind-boggling! **Xie Guizhong** of **Beijing, China**, set the record for the most one-finger push-ups in half a minute back in 2011. He also holds the record for the **fastest time** to **push a car 50m** with one digit. Xie's definitely got his **fingers** all over the record books!

SUPER-HIGH SLIDE



Tired of taking the stairs? Why not take the **slide** instead?! That's what visitors to the **U.S. Bank Tower** in **Los Angeles, California, USA**, can do.

At **280m high**, the **Skyslide** is the highest slide on the **outside of a building**, with its enclosed **glass tube** sending thrill-seekers from the **70th floor** to the 69th. Just don't look down!

The slide!



Would YOU ride this slide?!



SO MANY

HORNS



The **Jacob sheep** holds

the record for the most **horns on an animal**.

Most of these sheep have **four** horns, but some have **up to six**! At least one pair typically grows vertically, often reaching more than **60cm in length**. So you might want to stay on this sheep's good side!

This sheep has **four horns** - two on top of its head, plus one on each side!



LAIKA, THE FIRST DOG IN SPACE

This issue, NG KiDS' time-travelling mouse, Max, zooms back in history and meets Laika, the first dog in space!



4 October 1957.
The Soviet Union (Russia) had just launched the first man-made satellite into space: Sputnik.

They'd beaten their enemies and rivals, the USA, in the 'Space Race' and the whole world was agog at their brilliant achievement.

Unimpressed Americans

Yeah, whatever.

Cor!

Impressed nations of the world

Wow!

Amazing!

Ooh!

Leader of the Soviet Union, Nikita Khrushchev, got so excited that he demanded his scientists launch another Sputnik to commemorate the 40th Anniversary of the Russian Revolution.

You have three weeks!

Three weeks?! But there's not enough time...

And make it 'special'...

Scientists had barely started on Sputnik 2, and to get it in orbit in three weeks would mean cutting corners and hastily putting together the rocket.

We're going to need a bigger elastic band.

Sputnik 2 would have to be a one-way trip.

And to make the launch 'special' it would carry the world's first Earthling into space - a dog: Laika.

Laika was a stray found in Moscow.

Laika means 'Barker' but she was also known as Little Curly!

It was thought a stray would be strong and resilient enough to endure space travel.

Laika went through rigorous training to prepare her for the trip ahead. She was confined in small places, subjected to g-force (high speed) and loud vibrating noises.

I wonder how she's feeling?

RUFF!

She was trained to eat a special jelly instead of regular dog food.

YUK!

Space gel dog food

All the while, Laika remained calm and never caused any trouble.

Sputnik 2 launched on 3 November 1957 with Laika on board, much to the glee of many in the Soviet Union.

But many people were unhappy about a dog being sacrificed in this way. Sadly, Laika died very soon after entering Earth's orbit and demonstrations were held in protest.

As the first creature to orbit Earth, Laika is a pioneer and a hero, and there are monuments in Russia to celebrate her.

Her experience also kicked off debates on animal cruelty around the world and, for that, we will never forget Laika the space dog.



1

The new movie **Mulan** is based on a sixth-century Chinese poem called **The Ballad of Mulan**. In both the poem and the movie, the character **Hua Mulan** disguises herself as a man to **take her sick father's place in the army**.

2

In **China**, every year is represented by one of **12 animals**.

2020 is the **year of the rat**.



4

You can buy **green-bean-flavoured ice pops** in China.

3

ELEVATOR

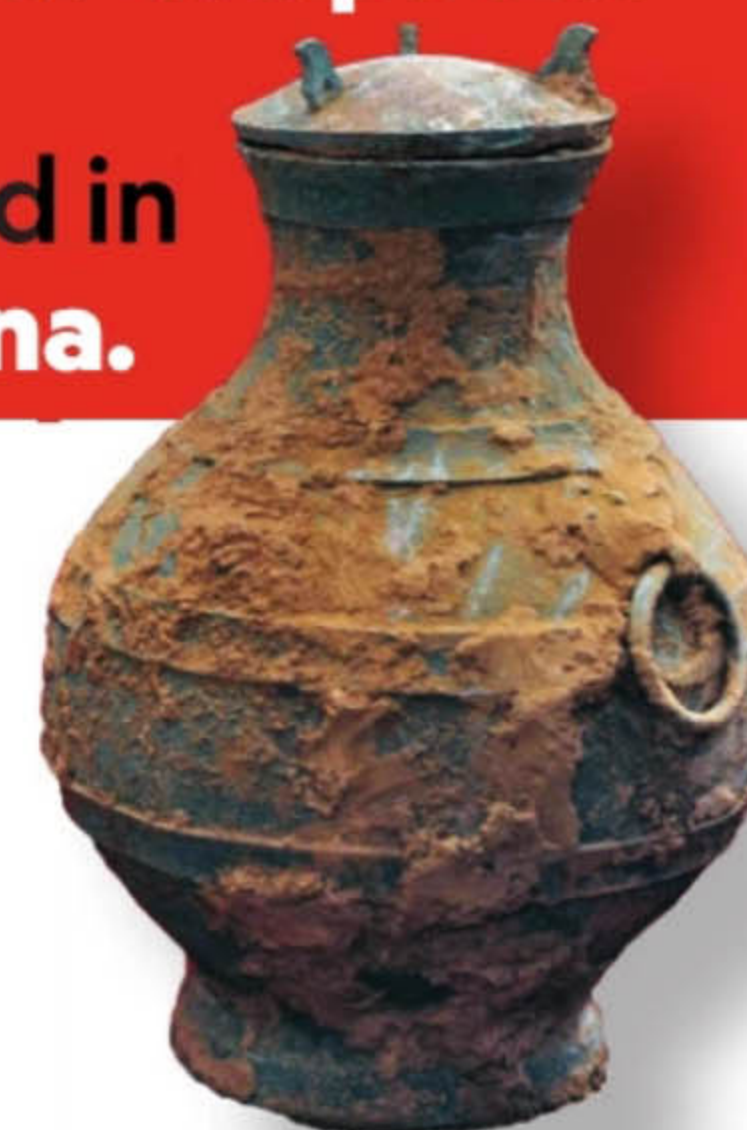
China's **Bailong Elevator** carries visitors more than **300m** up a cliff's edge.

5

In ancient China, **soldiers sometimes wore armour made from paper**.

6

In 2010, a **2,400-year-old pot of soup** was unearthed in **Xian, China**.



30 Cool

THINGS ABOUT



7

Found in northern China, **long-eared jerboas** have ears that are **one-third longer** than their heads.

8

People race boats with **dragon designs** at a Chinese festival **in the spring**.

9

Chinese monal birds sometimes build nests in caves.



10

Put together, all of China's railway lines could **loop around Earth twice**.



12

Half of all pigs on Earth **live in China**.

13

Temperatures in **China's Turpan Depression** can range from **49°C** in summer to **minus 29°C** in winter.



11

The mortar used to bind the **Great Wall's stones** was made with **sticky rice**.

14

Asiatic golden cats in South China sometimes **communicate by spitting**.



15 Developed about 5,000 years ago, the earliest **chopsticks** were used for cooking, not eating.



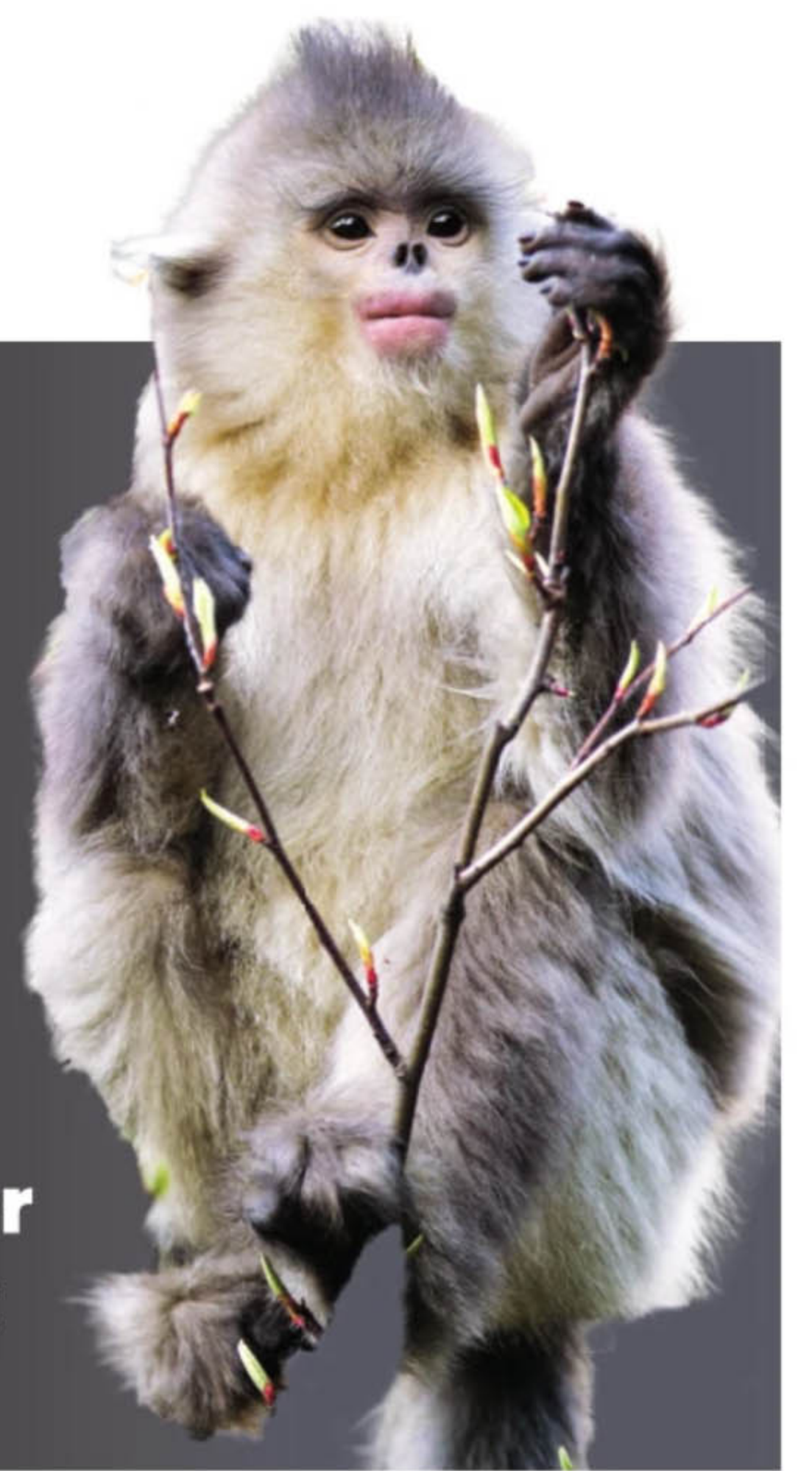
16 Chinese white dolphins, which live in the Pearl River Estuary, are often pink.



17 China is close to the size of the continental

USA but only has one official time zone. The USA has four.

18 China's Yunnan snub-nosed monkeys live at a **higher altitude** than any other primate except humans.



19 More people speak Mandarin, a Chinese dialect, as their first language than any other language in the world.



20 The Forbidden City, a palace complex in Beijing, contains about 9,000 rooms.

21 China is home to a cluster of **ancient rock pillars** called the **Stone Forest**.



CHINA

22 China has the world's **largest population** – around 1.4 billion in 2017. Australia, in contrast, has around 25 million.



23 China's **Grand Buddha**, a giant stone statue, has **5.5m-long eyebrows**.

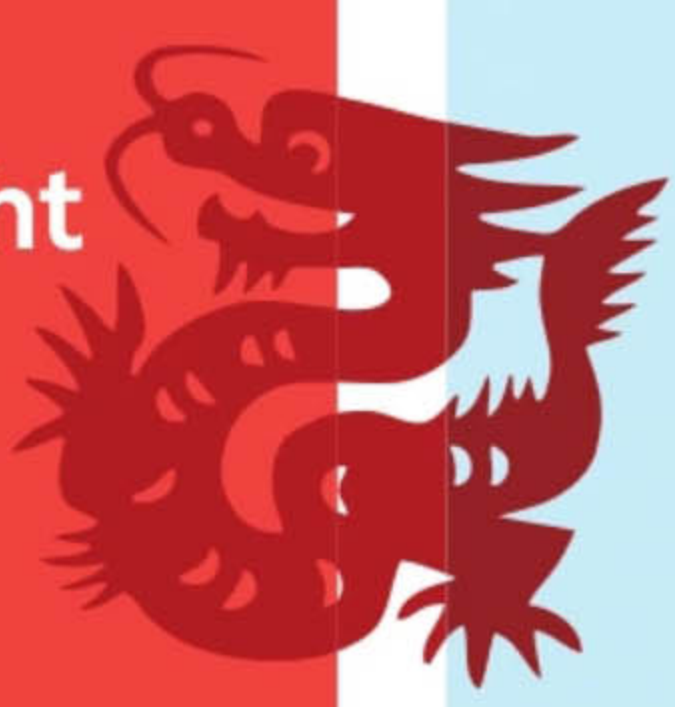
24 Chinese ice-cream trucks **can only play music when parked**.



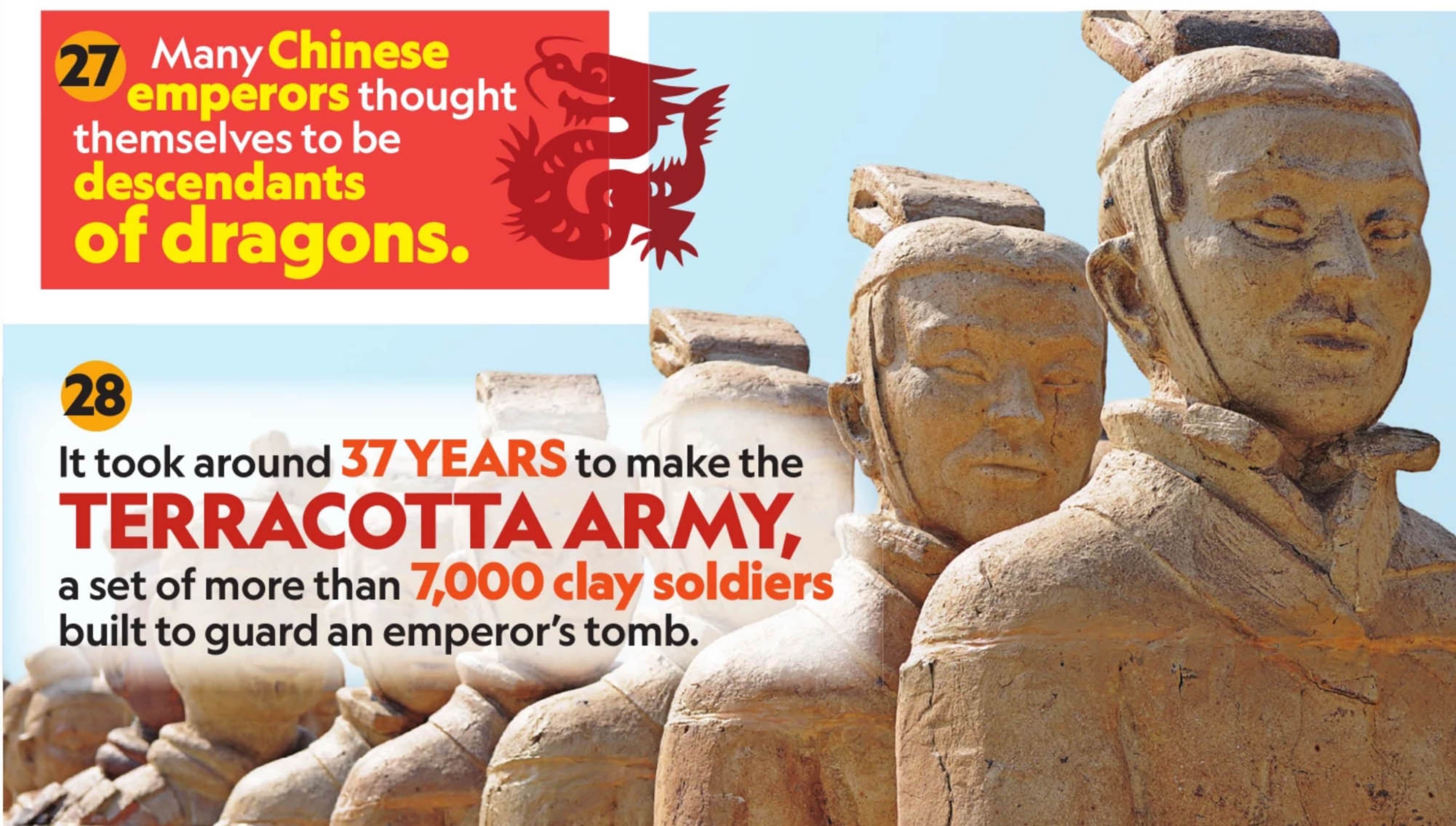
25 Giant pandas are **good swimmers**.



27 Many **Chinese emperors** thought themselves to be **descendants of dragons**.



28 It took around **37 YEARS** to make the **TERRACOTTA ARMY**, a set of more than **7,000 clay soldiers** built to guard an emperor's tomb.



26 Chinese brides **often wear red**, a colour considered to be lucky.

29 The word **'ketchup'** may come from a Chinese word for **pickled fish sauce**.

30 The city of Xinxiang in **northeastern China** has an **iron statue of Mulan** being welcomed home from war.

Lightzoom / Dreamstime (15); Maximilian Weinzierl / Alamy (16); Tanguyminh / Dreamstime (17); Will Burrard-Lucas / Nature Picture Library (18); Chun Guo / Dreamstime (21); Jasin Boland © 2019 Disney Enterprises, Inc. All Rights Reserved. (22); Designstock / Dreamstime (24); Natural Visions / Alamy (25); Hung Chung Chih / Shutterstock (27); Donkeyru / Dreamstime (28).



By David Kolivyayo, 12

Wildwind

Splash! Blood spilled like rain. Wildwind's mother was killed. Wildwind watched from his hiding spot, his tears dropping on a leaf. Slowly, the tears spilled on the ground. Then, his dad was killed. Wildwind got so angry that he nearly revealed his hiding spot. One of the guards went to check where he heard the noises but when he reached where Wildwind was, he had changed his hiding spot, so nobody was there. When he left, Wildwind slowly climbed down from the tree he was hiding in. One of the guards had seen him climb down and now the guards were chasing him. Wildwind ran into the forest. The deeper he went, the more lost they all got.

Wildwind kept running until a hand came out of nowhere and pulled him behind a tree and held his mouth shut as the guards kept running deeper into the forest. Wildwind kept struggling and the half man, half creature let him go and said, "Hey, Wildwind!" As soon as Wildwind heard those words, he was shocked, for he recognised the voice.

"Nadi, is that you?"

"How do you know my name?" Nadi asked.

"I am your brother, Wildwind!"

"Sorry I didn't know I had a brother, I have been in this forest for too long!" Nadi said in shock.

"Why didn't you come back home?" said Wildwind.

"I got lost on my way back home. So what are you doing here? Did Mum tell you to come here?"

"No," Wildwind said sadly.

"What's wrong?" said Nadi. "Where's Mum? Is she OK?"

"Mum and Dad were killed by Enniga and Isdis. We have to avenge our parents' deaths..."

To be continued...



WRITING TIP

Not sure if your story is interesting? Well, try testing it out on others! Most authors ask for feedback from a trusted friend at some point. It's a great way of learning what works well and what needs improving in your story!

STORY IDEA

Try setting your story in one of the world's Seven Wonders! Do some research into the place and its fascinating history. Why is your character there?

SEND US YOUR STORY!

Email 200-250 words to editorial@ngkids.com.au along with a recent photo of yourself and a simple illustration in black pen. If your terrific tale is selected, we'll be in touch!



The Story Island Project is a Hobart-based not-for-profit organisation that nurtures the creativity and writing skills of young Tasmanians aged 7-17 and celebrates their diverse voices. Find out more at storyislandproject.org

FORK-TAILED
KATYDID
NYMPH



SIAMESE
RHINOCEROS
BEETLES



 NATIONAL
GEOGRAPHIC
KIDS

CASSOWARY





HISTORY'S GREATEST HITS

ALL ABOUT

STEPHEN HAWKING

Learn the life story of this world-famous scientist!

1942 - 1958

You might be surprised to know that one of the world's most **brilliant minds**, **Stephen Hawking**, was terrible at school! Born in **Oxford, England**, in **1942**, Stephen often got in trouble during his childhood for **not doing his schoolwork** – he found it **boring** because **physics** and **maths** were just too **easy** for him. He was so brainy that his buddies even nicknamed him **Einstein**, after the renowned scientist!

1959 - 1962

Both of Stephen's parents had gone to **Oxford University**, and he followed in their footsteps. After graduating with a degree in physics, Stephen moved to **Cambridge University** to study **cosmology**, a type of **astronomy** that tries to answer really important questions like **how the universe began**, how it's **changing** and how it will **end**.



I LOVE PHYSICS!

1966 - 1985

Even though he was losing the use of his **muscles**, Stephen's **mind** stayed super-sharp and he came up with many amazing **theories** that changed how **scientists** thought about **space**, **stars** and the **Universe**! Although teaching at some of the world's best schools, including the **California Institute of Technology** and **Cambridge University**, Stephen sensed that the **general public** wanted to learn about the **secrets** of the **universe**, too, and so he started writing a **book**.



1962 - 1966

While at Cambridge, Stephen met and fell in love with fellow student **Jane**. But he noticed he'd been getting **clumsy**, and so he decided to visit the doctor. And in 1963, when he was just **21**, he was hit with some bad news – he had **Motor Neurone Disease**, a condition that would slowly **stop his muscles working** until he **wasn't able to move at all**. Despite his diagnosis, Stephen and Jane **married** and they went on to have **three children**. With Jane's support, Stephen gained his **PhD**.

Turn over to meet Stephen's daughter **Lucy**!

1985 - 1988

In **1985**, Stephen completely **lost the use of his voice**, and so he learned to speak using a **special computer**. But he was determined to finish his book and he made sure that the **complex science** was written in **easy-to-understand language**, and with lots of **humour**. When ***A Brief History of Time*** was published in **1988** it became an **international bestseller**.

WHEE!
IT'S COOL
BEING
WEIGHTLESS!

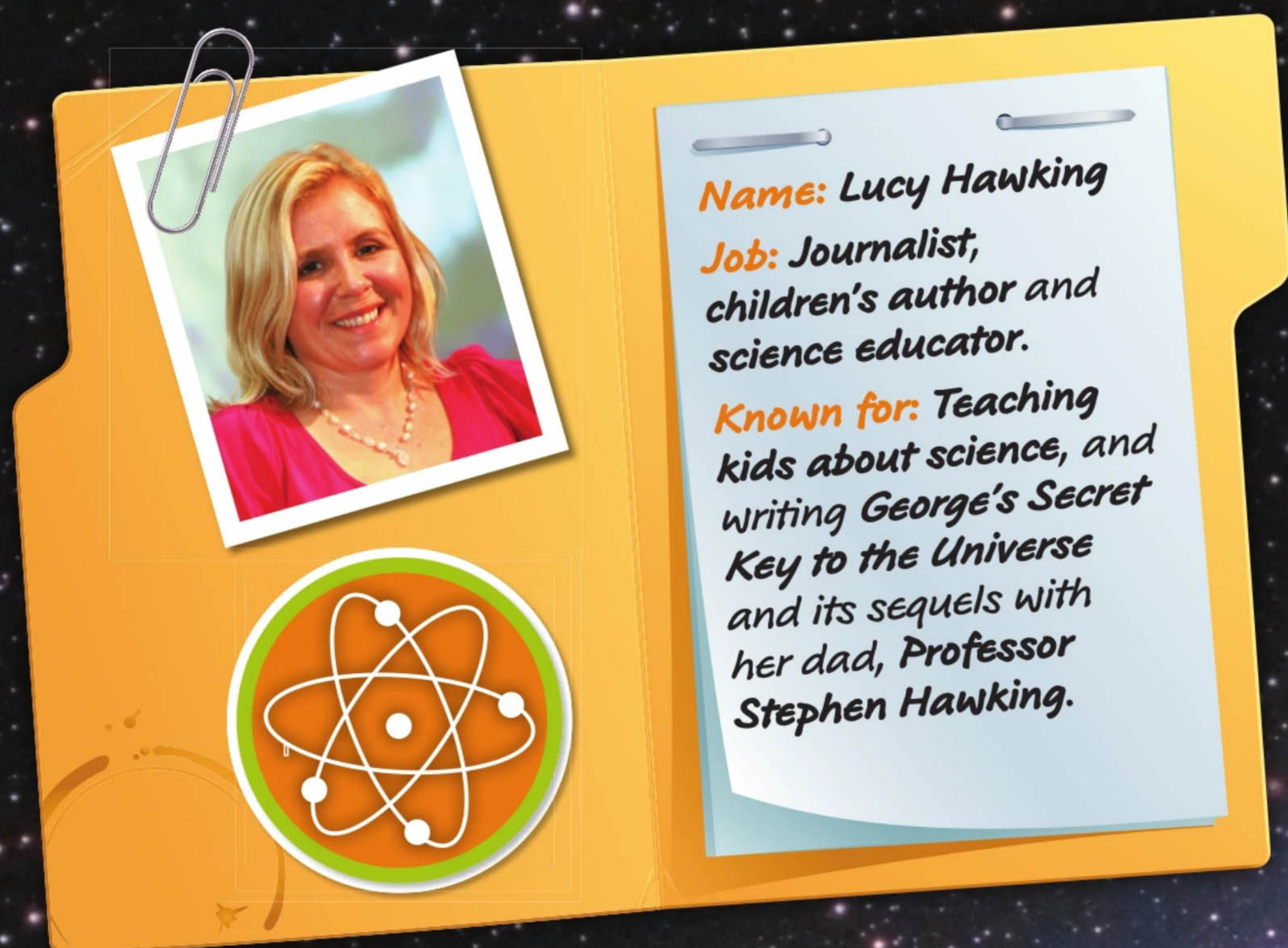


1988 - 2018

Stephen became a **global star**. He met many celebrities and **world leaders**, opened the **London 2012 Paralympic Games**, and even appeared on TV shows like ***The Simpsons***! In **2007** he experienced the **weightlessness of space** (left) when he flew on an **anti-gravity aircraft** named the **Vomit Comet**. Stephen died in **2018**, and will be remembered not just for his remarkable understanding of stars and the Universe, but for helping **everyday people** understand them, too.



Bestselling science author and journalist Lucy Hawking tells us about life with her famous father...



The Andromeda galaxy is the nearest galaxy to our own Milky Way



What is Motor Neurone Disease?

Motor Neurone Disease (MND) is an **illness** which affects the **nerve cells** in the **brain** and **spinal chord**. These nerves **tell our muscles what to do**. People with MND find it harder to do things such as **walking, talking, eating, drinking** and **breathing**. But not everyone with MND has all these problems. MND **isn't infectious** and it's **not something that children get**, but doctors are still trying to find out why it happens.



Lucy's six-book **George** series, written with her dad, has been translated into **40 languages!**

Hi Lucy! Your dad, Professor Stephen Hawking, was a brilliant mathematician and physicist – did he ever help you with your homework when you were a kid?

Yes, he was very helpful and would explain a lot of things to me. My **younger brother Tim** has this funny story about when our father helped him with his **maths homework**. He got **96%**, which is great, but he and my father spent ages poring over it. They were like, "How did we **lose 4%**? What did we do wrong?!" They couldn't work it out!

What was it like growing up with a famous father?

Well, he wasn't really famous when I was a kid. His fame started after he published **A Brief History of Time**, which came out when I was already a young adult. But what was really interesting was growing up with a **disabled father** in the **1970s**. He had an illness that took away his ability to **move his muscles** and took away his **natural speaking voice** (see below left). Back then, people with disabilities weren't really seen in public – at least not like my father was.

But he was always **zooming around** very fast in his **electric wheelchair**, sometimes with me and my older brother **Robert** running alongside. People couldn't get over it! They'd **stop and stare**, not because of his fame, but because of his disability and **what he was doing**.

Sounds like he was doing some pretty futuristic stuff!

Yes, tremendously so! And my mother, too. **Life was full of problems** for people with disabilities back then. Things like **dropped kerbs** on pavements didn't exist in the UK, and so my mother and father fought to get a **fairer deal** for people with disabilities and their families. One of the things my

This is the first ever photo of a black hole – it's blurry because it's 54 million light years away!

father was most proud of was when he opened the **Paralympics** in **2012**. The hairs stood up on the back of my neck when he came out and started speaking.

When your father lost his voice, he used a voice synthesizer to speak. What was that like?

Well, **Tim** had quite a **mischievous sense of humour** and used to **tamper** with the **speech machine** to swing things in his favour when he came to ask father for an **ice-cream** or whatever!

That's so cheeky! Did you ever mess about with his accents, too?

The early technology that enabled my father to speak only came with **one voice**, but later on, as **synthetic voices** developed and had **different accents**, I remember us having fun playing with different voices – one time we had my father talking as an **elderly Irish woman!**

"Kids are feeling eco-fear, and so we want to empower them!"

Brilliant! Your dad appeared three times on The Simpsons cartoon. What did he think of that?

He really really loved it. But he said he was

glad he didn't have to be **bright yellow** forever!

Your new book is called Unlocking the Universe: Everything You Need to Travel Through Space And Time. If YOU could travel through space and time, where would you go?

Hmm... I'd quite like to go into the **future** to see how we'll tackle **climate change**. How will it all work out? And what role will **robots** play in our future lives?

"NG Kids readers are the future. And thank goodness for that!"

In 2009, Lucy's dad received the Presidential Medal of Freedom from US President Barack Obama – the highest civilian award in the USA!



If you could travel back in time, would you like to meet yourself as a child?

Gosh, no one's ever asked me that before! No, I don't think so. Funnily enough, though, I had a weird **time-travel-ish** experience when I watched the **Theory of Everything** film, the movie about my father's life. It was like seeing a **family photo album come to life!** It was so strange.

It must've been! Unlocking the Universe is a collection of 'essays' written for kids by scientists about things like black holes and exploring the universe.

What's your favourite planet and why?

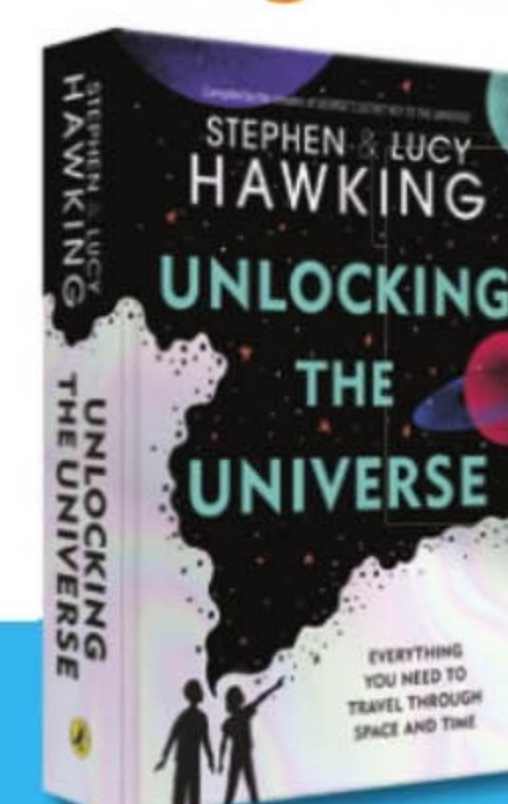
Earth! It provides us with **everything we need**. It's got a **surface we can walk on**, unlike **Jupiter** for example. It has an **atmosphere we can breathe**, unlike **Mars**. It's in the **Goldilocks Zone**, meaning that **Earth's temperatures are habitable**, unlike **Mercury** or **Mars**.

Earth is amazing. When we talk about other planets in our solar system we quickly realise how **hostile** they are to human life. Yes, we can plan to visit Mars, but we already have the **perfect planet here**. We just need to **take better care of it!**

Absolutely! There's a section on climate change in the book that was written by a 15-year-old girl. Why did you ask a teenager to write it?

I wanted a **young voice** in the book. **Nitya Kapadia** had started up a **climate action group** at her **school** in London and so I wanted her to write it as if she were writing to **younger students** at her school, telling them that there are lots of things **young people can engage with**. We want **children** to know that **they can do something to help stop climate change and save the planet**. **Children are not powerless!**

We agree! Thanks for chatting, Lucy.



Unlocking The Universe is out now.



Lucy with her mum, dad and brother Robert back in the 1970s



Check out these outrageous facts...

PEANUT BUTTER
can be converted into
DIAMONDS.

In the USA,
between
1912 and 1918,
people could take
their **money** to
Washington, D.C.,
to be
WASHED
and
IRONED.

About
A BILLION BACTERIA
could be in your
mouth right now.



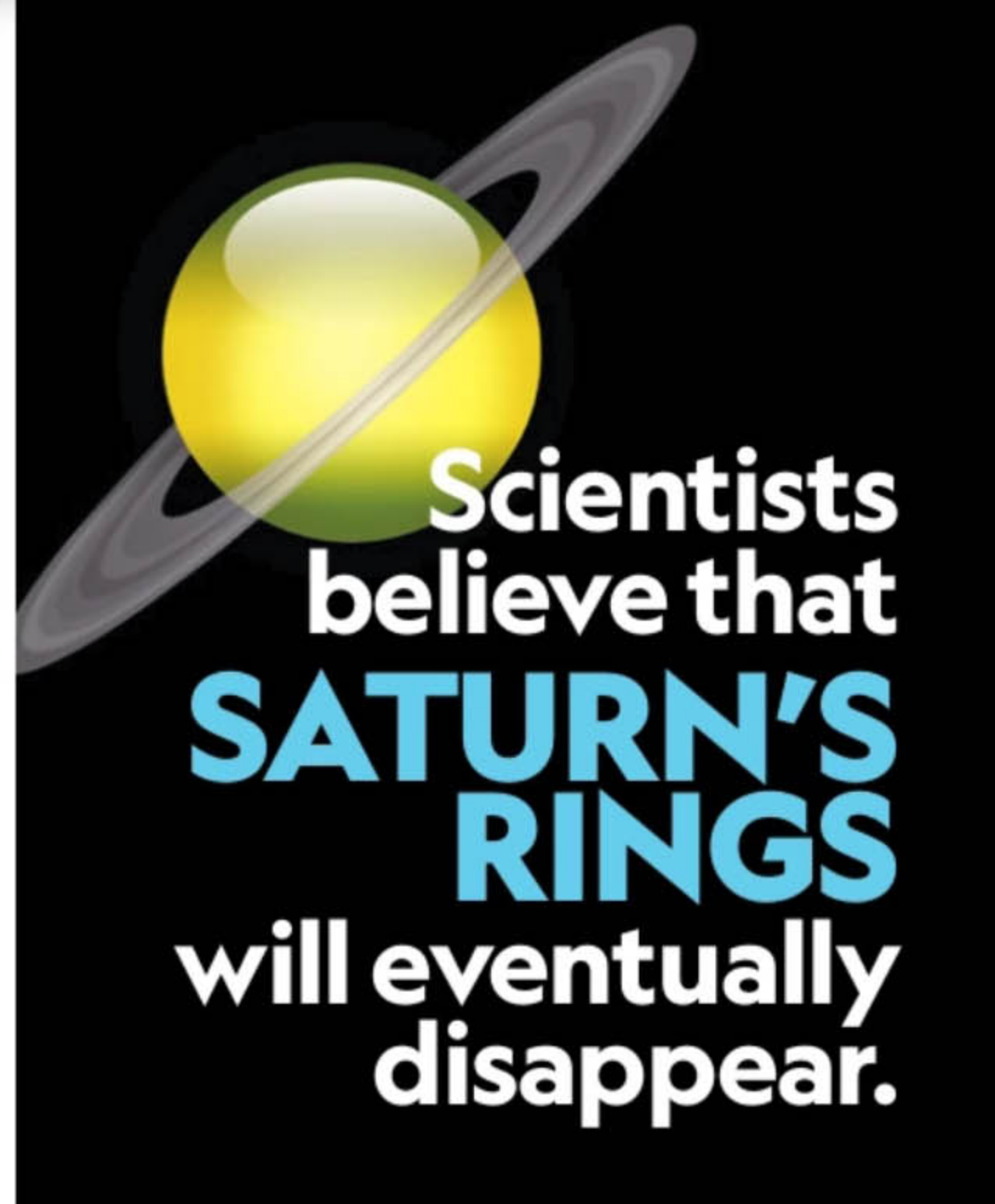
Crocodiles
have been around
for about
200 MILLION YEARS.



Flavours of
ICE CREAM
in Japan include
OCTOPUS
and
JELLYFISH



Scientists
believe that
SATURN'S RINGS
will eventually
disappear.



Some fish
can change from
FEMALE
to **MALE.**



One of the world's **MOST EXPENSIVE TREE HOUSES**,
located in the UK, cost almost **\$6 MILLION** to build.



THE GHOST OF HOWLERS BEACH

Are there really ghosts on Howlers Beach?
It's up to Butter O'Bryan to find out!

The year is 1932. Butter O'Bryan lives in a **Very Small Castle** with his father and three aunts – **Aunt Elephant**, **Aunt Cake** and **Aunt Peculiar**. Those aren't their real names, of course, just as Butter's father isn't really called **Pongo**.

And even though Butter is only **12 years old**, and the **grandson** of one of Australia's most successful **Jam Kings**, he is very aware of the hardship many people are experiencing.

Butter has been told there are **ghosts** at the nearby isolated **Howlers Beach** – but are there? And how can the children Butter plays **cricket** with on the beach simply **vanish**? Who are these kids and why do they **refuse his help**?

Butter is certain they're hiding a **secret** and he's determined to **uncover** it! You'll love this exciting new book from **Jackie French**!

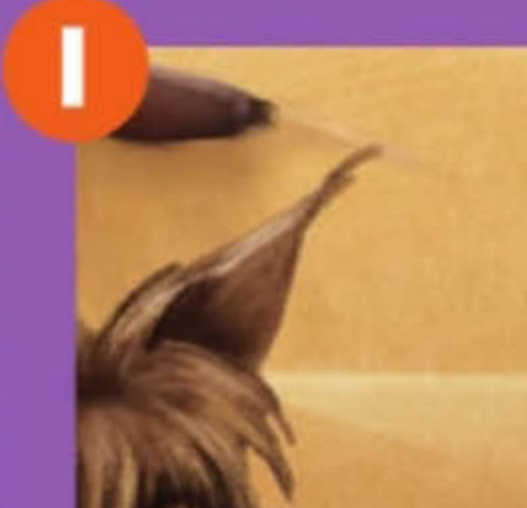
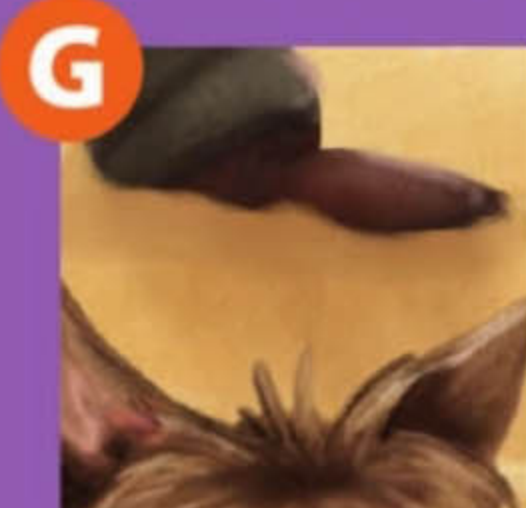
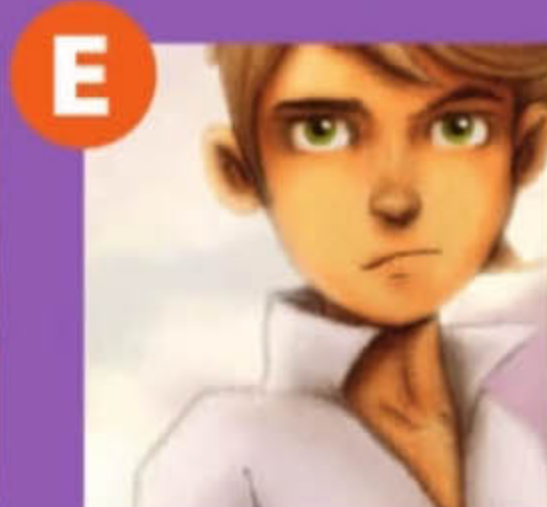
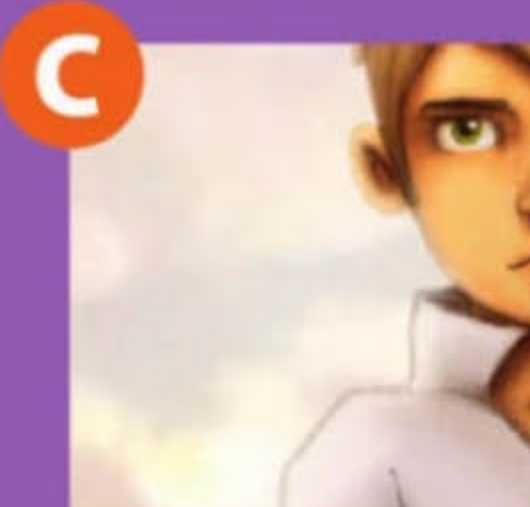
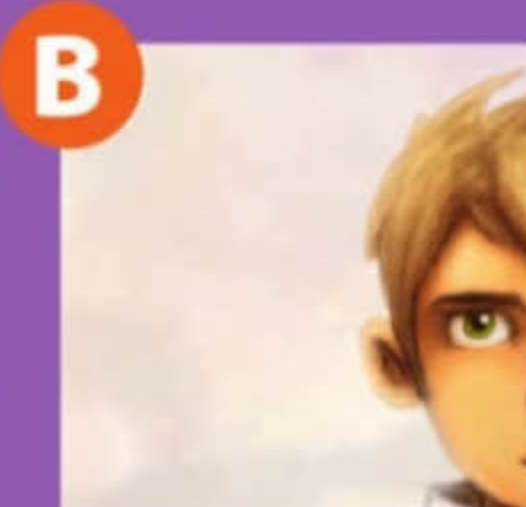
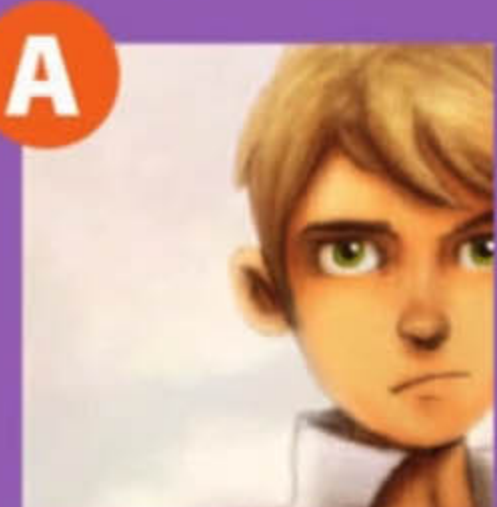
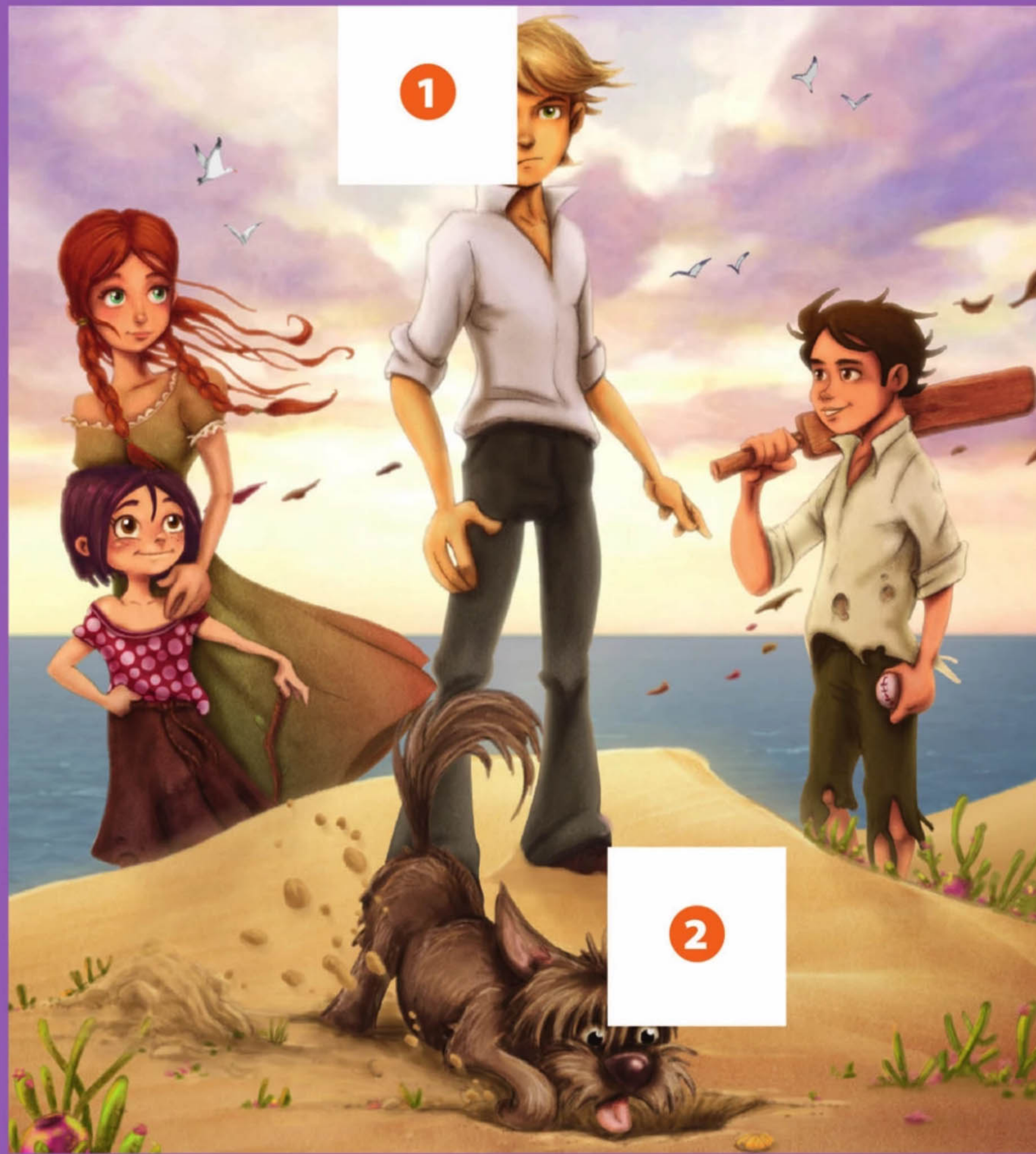
Top author
Jackie French is the
former **Australian
Children's
Laureate**, and has
written over
140 books!

Brand-new
mystery and
adventure
series!

**OUT
NOW!**

MISSING PIECES

Two bits have been removed from this picture of **Butter and the children on the beach**. Can you match the missing pieces?



LOST LETTERS

Write a **letter** in the **blank spaces** of this puzzle to form a **word either side!** Do it correctly and you'll reveal another name for a **ghost**.

Puzzle answers
on **page 49**

TRA		OOL
PAT		OOK
YOG		NTS
BEA		EED
SEA		OOL
ALS		VER
TEA		EET

WIN!

BRILLIANT BOOKS!

We've got **three copies** of *The Ghost of Howlers Beach* up for grabs! Just head online and answer this question for your chance to win!

Q What are the main ingredients of jam?
a) Berries and sugar b) Oranges and honey
c) Potatoes and salt

Enter at
natgeokids.com
by
23 April!

ROCK 'EM SOCK 'EM SHRIMP

THESE TINY CRUSTACEANS
WILL KNOCK YOU OUT!



Burrowing under the sand near coral reefs lives a pint-sized punk. This crustacean may have a colourful shell, adorable eyes and grow to just 17cm in length, but don't let that fool you. The peacock mantis shrimp is a fearsome ocean predator. Dig deeper to discover five stunning facts about this tiny toughie...



Where peacock
mantis shrimp live



1 EYE SPY

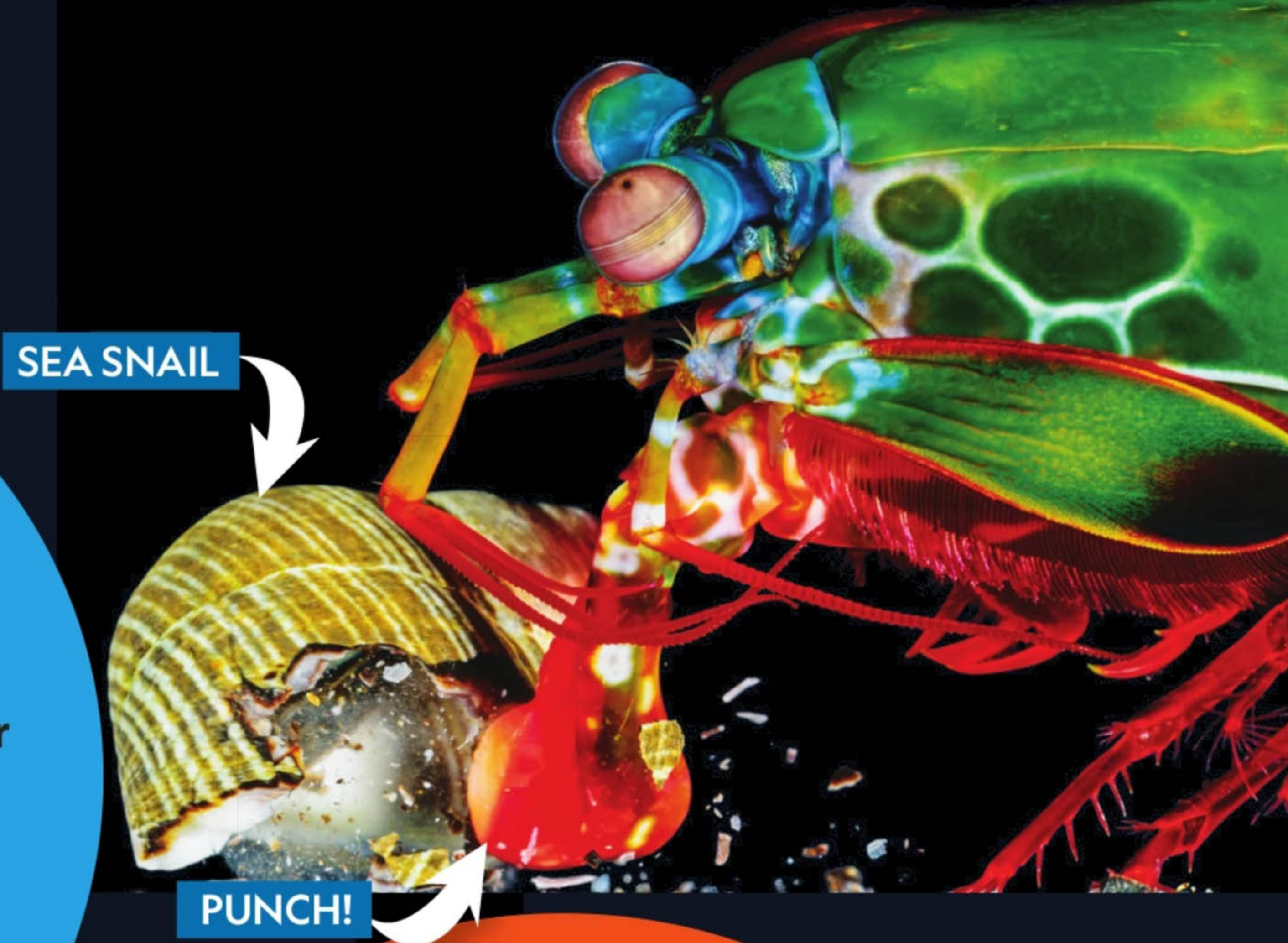
Sitting on top of two **stalks** that can **move in all directions** are a mantis shrimp's powerful **eyes**. The remarkable peepers have more **colour receptors** than any animal, including **humans**. These extra receptors allow them to see a type of **light** that's **invisible to all other animals**. The **shells** of males and females **reflect** this light in **different patterns**, helping them find a **mate** or **avoid a fight** with another mantis shrimp. Cool!

A male's shell is **more colourful** than a female's.

2 MEGA MUMS

Don't mess with peacock mantis shrimp mums! These protective parents secrete a **glue-like substance** that **binds together thousands of eggs**, which they **carry everywhere**. Then they'll spend about **40 days removing debris** and **fanning oxygen-rich water** over the eggs with their gills. During that time, the new mums **never leave** their burrows – **not even to eat**.

These invertebrates dig **U-shaped burrows** to live in.



3 PERFECT PUNCH

Peacock mantis shrimps have to **punch** for their lunch. That's because many of their favourite snacks – such as **crabs, clams** and **sea snails** – are **protected by superhard shells**. Luckily, the shrimps are the most **powerful punchers** on the planet. They have two **hinged, hammer-like limbs** that can thwack their targets with a force that's over **2,500 times stronger than their body weight**. (That would be like **you** punching through a **steel wall**!) The crustaceans also use their limbs to **defend their territory** against other peacock mantis shrimps. In fact, they're so brawny that they've been known to shatter **aquarium tanks' glass**!

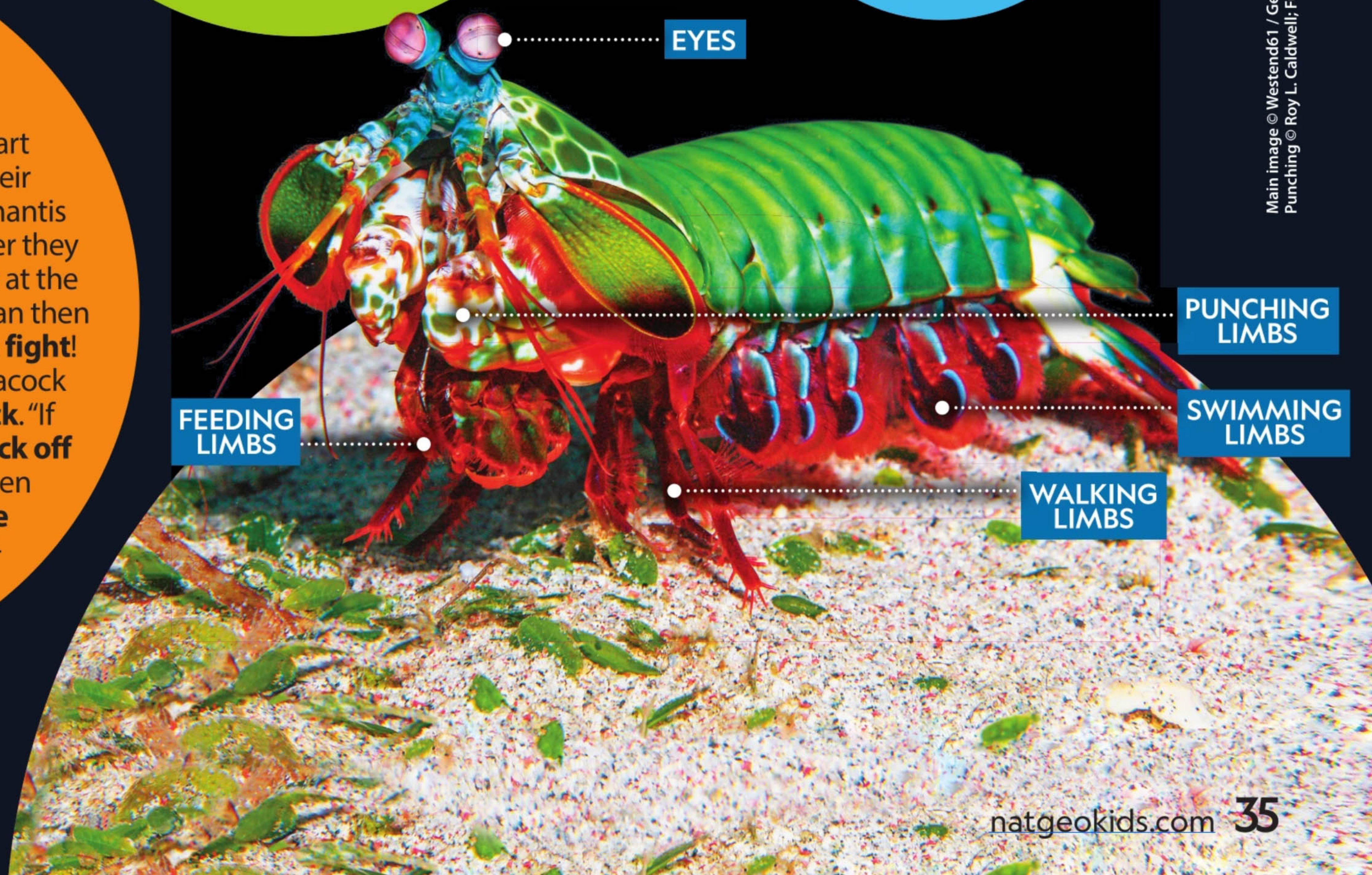
Peacock mantis shrimps are named after colourful **peacocks** and also **praying mantises**, because of the way they **fold their limbs**.

4 SPEED DEMON

Don't get on the wrong side of a peacock mantis shrimp – they **strike so quickly** that they could land **50 punches** in the time it takes you to **blink your eye**. Whoa! The mantis shrimp's punch is so fast that it also causes the water in front of it to **boil**! Tiny **bubbles** are created, and when they burst they release a **huge wave of energy** which thumps the victim **hard**. Yikes!

5 BRAINIAC ATTACK

Peacock mantis shrimps have to be smart about **how** – and **when** – they wield their weapons. "They can **remember** another mantis shrimp they've **fought before**, and whether they **won** or **lost**," says **Roy Caldwell**, a biologist at the **University of California** in the **USA**. They can then work out whether it's **worth getting into a fight**! When they're going after a tricky meal, peacock mantis shrimps go in with a **plan of attack**. "If they're dealing with a crab, they'll first **knock off the deadly claws**, then the **legs**, and then they'll use their own limbs to **hold the crab** in just the right place for a shell-shattering punch," Roy says. Such **brainy** beasts!



1

FUNNY FLOATS

Moomba Parade in **Melbourne** has been bringing fun to the city every **March** since **1955**, with fabulous floats like this **giant frog**. There's also a **kids' competition** to **design a float**, and winning drawings get made into larger-than-life floats for real (see far left)!



Festive Parades

These super spectacles will put you in a party mood...

2

FLOWER POWER

For more than a **century**, **flower-covered floats** and **marching bands** have dazzled crowds at the annual **Rose Parade** in **Pasadena, USA**, on **New Year's Day**. Sports fans then stick around for the **Rose Bowl Game** – a famous **American college football match**!



3 BLAZING BOAT

The **Up Helly Aa** festival in the **Shetland Islands, Scotland**, ends every **January** in a **blaze**. Harking back to a **Viking ritual**, hundreds of **torchbearers** march through the streets of **Lerwick** before **setting fire** to a **9-m-long galley** – a type of Viking ship! What a way to celebrate the islands' **history**!



6 DANCE PARTY

With elaborate headdresses and costumes, dancers perform the **samba**, an **Afro-Brazilian group dance**, in front of a crowd at the **Carnival parade in Rio de Janeiro, Brazil**. Carnival, a festival of merrymaking and feasting, allows people to let loose after a couple of months of winter.



7 FLOATING FESTIVAL

People in **Venice, Italy**, take their parades to the **water**. That's because this city is built in a **lagoon** with **canals** for **streets**. During the **Venice Carnival** in February, revellers float down the **Grand Canal** in **decorated gondolas** and other boats – like this **giant mouse gondola**!



4 COLOURFUL RITUAL

Millions of **Hindus** come together to take a **ritual dip** in one of **four sacred rivers** in **India** as part of the **Kumbh Mela** festival – in **2001**, a record-breaking **60 million** people gathered at the **confluence** (place where two rivers join) of the **Ganges** and **Yamuna** rivers! The religious procession can include **elephants** and **camels**, too.



8 CLOWN REVELRY

Giant jesters parade through the streets of the historic **French Quarter** in **New Orleans, USA**. During the annual **Mardi Gras** celebration, nearly **100 'krewes'** – or festive groups – toss goodies including **toys**, **stuffed animals** and **Mardi Gras beads** to the people who come to watch. Take it away!



5 BALLOON BONANZA

Each year, more than **three million** people line the streets of **New York City** in the **USA** to watch the **Macy's Thanksgiving Day Parade**, with **50 million** more watching on TV! The parade, a three-hour procession of **giant inflatables**, **dancers** and **marching bands**, has been held almost every November since **1924**.



JUNIOR EXPLORERS' CLUB

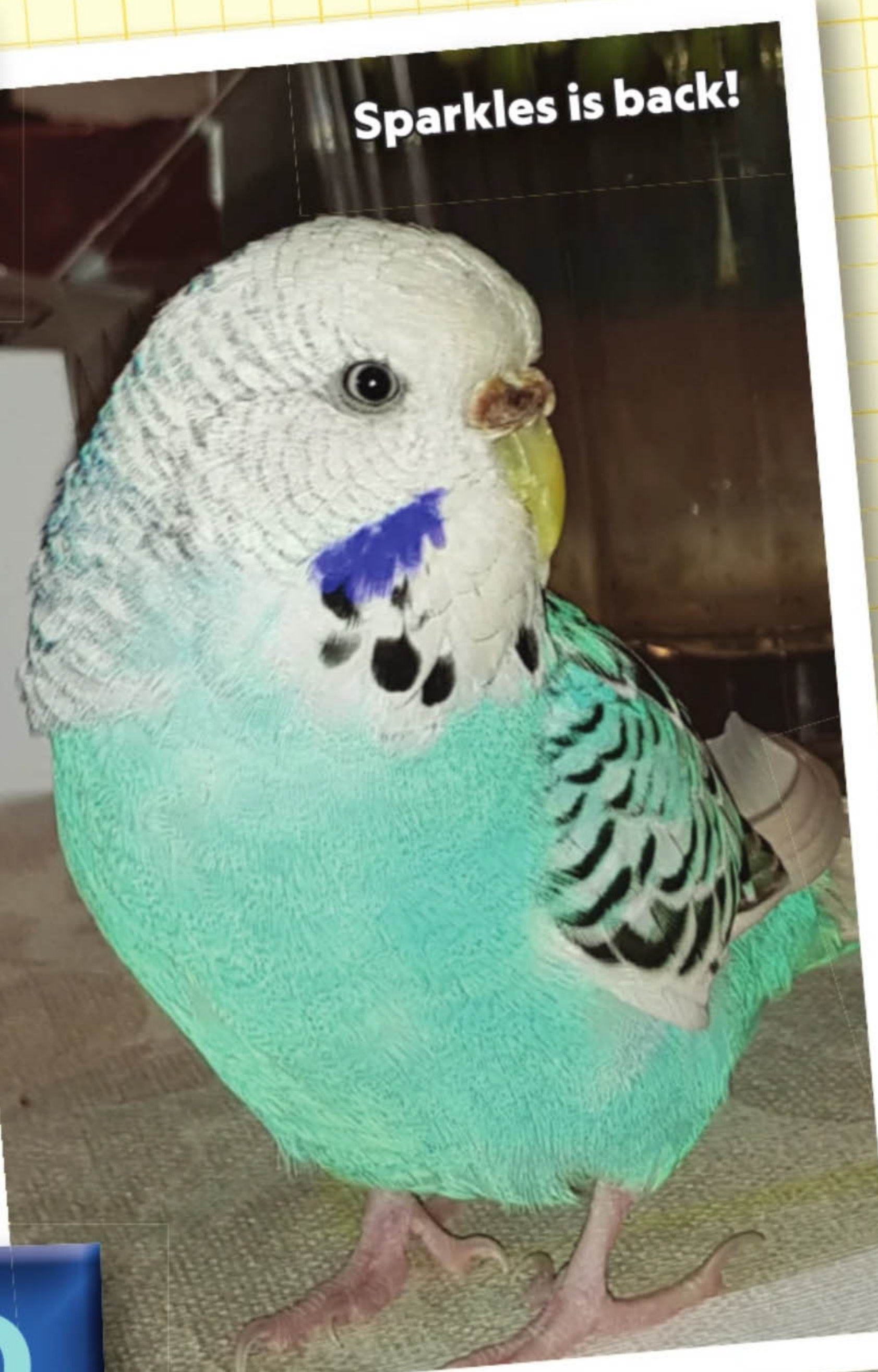
SPARKLES SURPRISE!

In **December 2018**, our **budgie Sparkles** was sitting in her cage in the garden enjoying the fresh air. After a while we stopped hearing her tweet so went to check on her. She was **missing**! We called her name and looked everywhere, but Sparkles was gone! We put up notices and posted on social media. But nothing. You don't know how bad this was. Our Sparkles was really special – she'd sit on our shoulders and nuzzle her beak on our cheeks. She'd give kisses and sing in our ears!

Then, **seven months** later, our neighbour showed us a picture of **our bird**! Someone had found her and posted on the **Lost and Found Animals Facebook** page. We got our beloved Sparkles back!

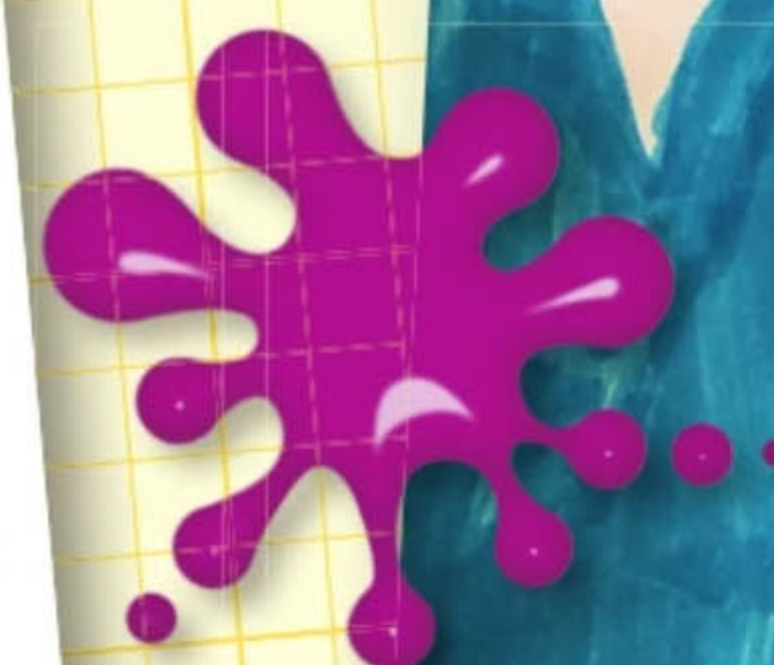
Yameema, 12

● Wow! We're so glad she returned, Yameema. She must have been on a real adventure!



Sparkles is back!

Red-eyed tree frog by Hazel, 6



THE CLEAN-UP KID

Hi NG KiDS,
Last year, my family and I went to **Vrindavan, India**, for the second time. We helped a **clean-up group** pick up rubbish around a **holy temple**. There was a lot of rubbish, and they were teaching people about using less plastic. So please use less plastic!
Bhakti, 10

● Great job, Bhakti!



Lovely litter-picking people!

NAT GEO KIDS ON TOUR

Our family has just bought a new **boat** and we have been **exploring** different places every weekend. Recently we sailed to **Tangalooma Island** and I bought along my **Nat Geo KiDS** mag! I love it because it's got lots of interesting articles, but I also love all the puzzles and activities at the back which are fun to do. I only got a few drops of water on it so my brother could still read it after!

Zara, 10

● Glad to hear you're sharing (and caring for!) your mag, Zara!



Ahh, this is the life!



COVER STAR!

Meet Lloyd

NAME: Lloyd

BREED: Border collie

SPECIAL FEATURES: Different coloured eyes – one blue, one green!

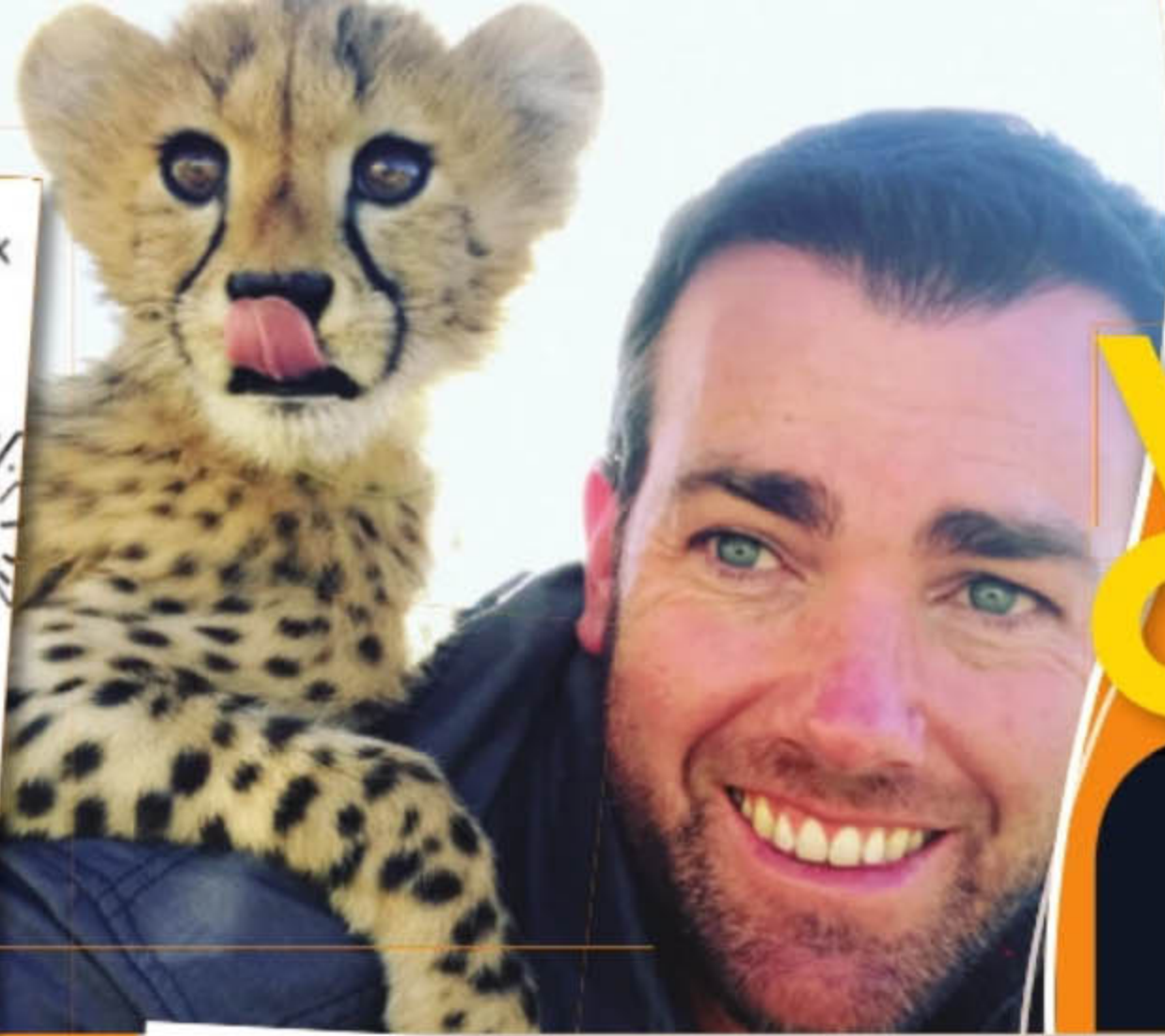
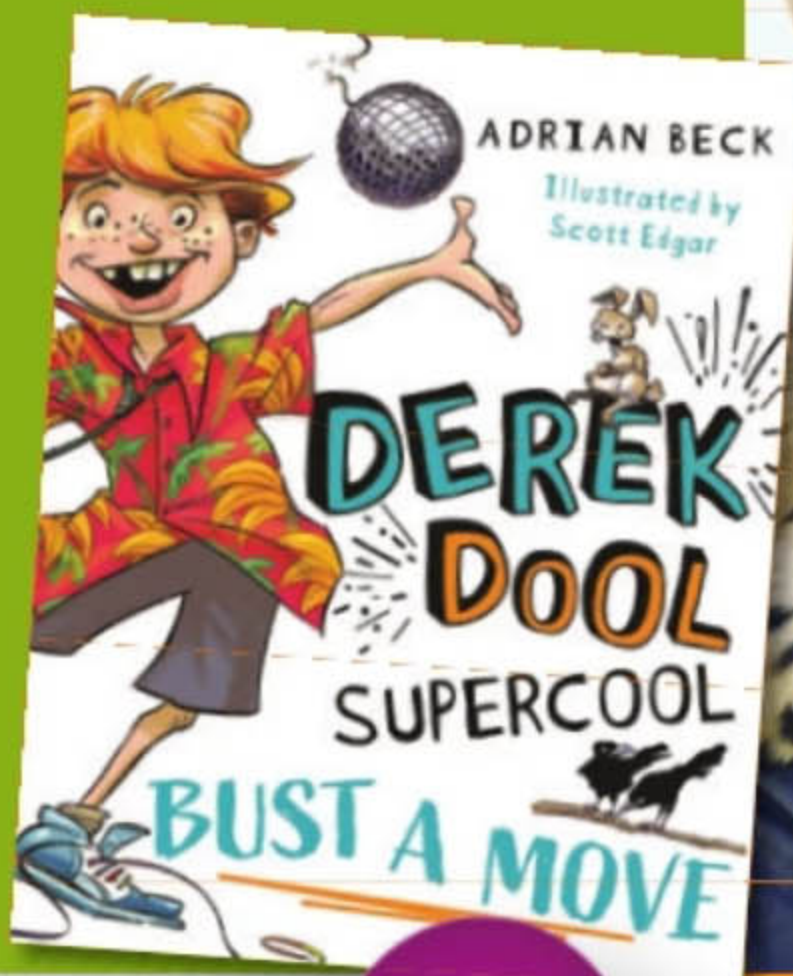
LOVES: Sleeping, cuddles, eating, and playing with his big sister Goldie.

HATES: Sleeping by himself and being ignored. He doesn't like staying outside for too long either.

OWNER: Evie, 10

We want to hear from you! Send in your artwork, jokes, craft pics and pet photos. Tell us about your wildlife sightings, hobbies, interests and opinions. A selection of our faves will be printed on this page. Email us at editorial@ngkids.com.au

Every reader on these pages will receive the first book in the hilarious **Derek Dool Supercool** series, all about a nerdy kid's quest to become popular!



WILD CAT CONSERVATION

with Ben Britton



● What a cool drawing, Hazel! Turn to page 10 to find out more about this cute amphibian.

POSTCARD FROM...

Hawaii



Hey Nat Geo KiDS!
My family and I spent a week in Oahu, Hawaii. My favourite part of the trip was going on the Atlantis submarine - we saw lots of coral reef, fish, sea turtles, and at one point, a reef shark swam past my porthole (above)! Another highlight was seeing an endangered Hawaiian monk seal resting on a beach. We had to keep six metres away so as not to disturb it. I can't wait to go back to Oahu again!
Samantha, 11



Sleepy seal!

● Wow, that submarine trip sounds incredible, Samantha!



DID YOU KNOW?

Depending on the **weather** and **location**, pugmarks can tell you **when** an animal was there! For example, if the **edges** of a print in **soft sand** are **crisp**, you know it's **fresh**!

PUGMARK

What is it?

A **pugmark** is the **footprint** of an animal, left as a **track** on the ground!

Why do researchers use them?

The best way to **identify** a species in an environment is to **see it for yourself**. When that isn't possible, researchers need to look for **evidence** that the animal was in the area. One of the clear signs that an animal has been nearby is the **footprints** it's left behind!

What can they tell you?

A simple pugmark can tell you a lot! You can

often identify the **species**, whether it's a **juvenile** or an **adult**, which **direction** it was heading and sometimes the **speed** it was moving when it created the pugmarks. Wow!

Where do you find them?

Anywhere an animal has walked! But the best pugmarks are found in **soft sandy soil**, or **wet clay / mud**.

To learn more about Wild Cat Conservation go to wildcatcentre.org.au



BY **the** NUMBERS

SPACE JUNK!

Not only have humans trashed the planet, they've made a mess of space, too! Beyond the clouds, further than the eye can see, millions of pieces of debris are floating around Earth. Read on to find out what's up there...

1965

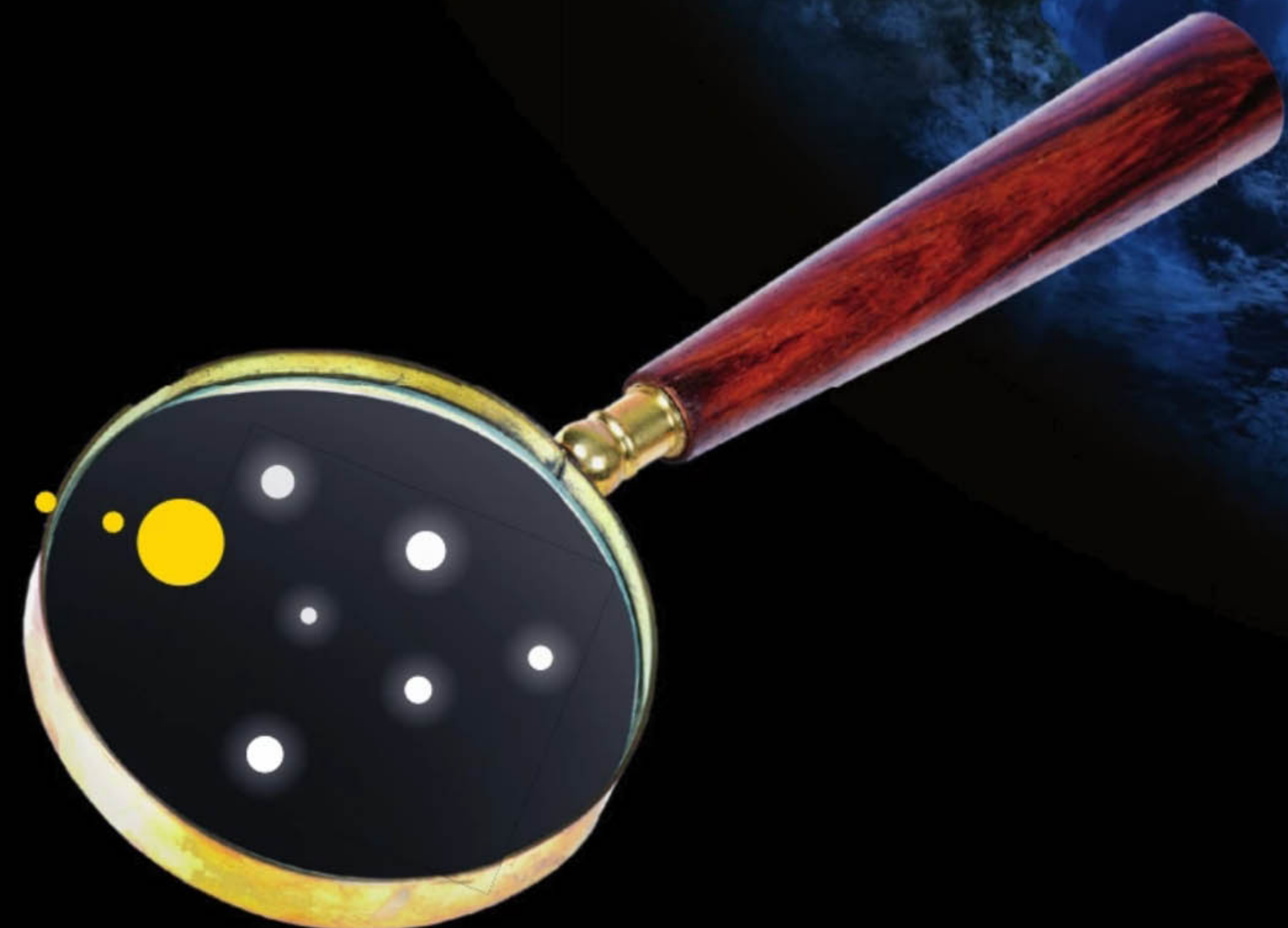
Year astronaut **Ed White** lost one of his **gloves** during a **space walk**.

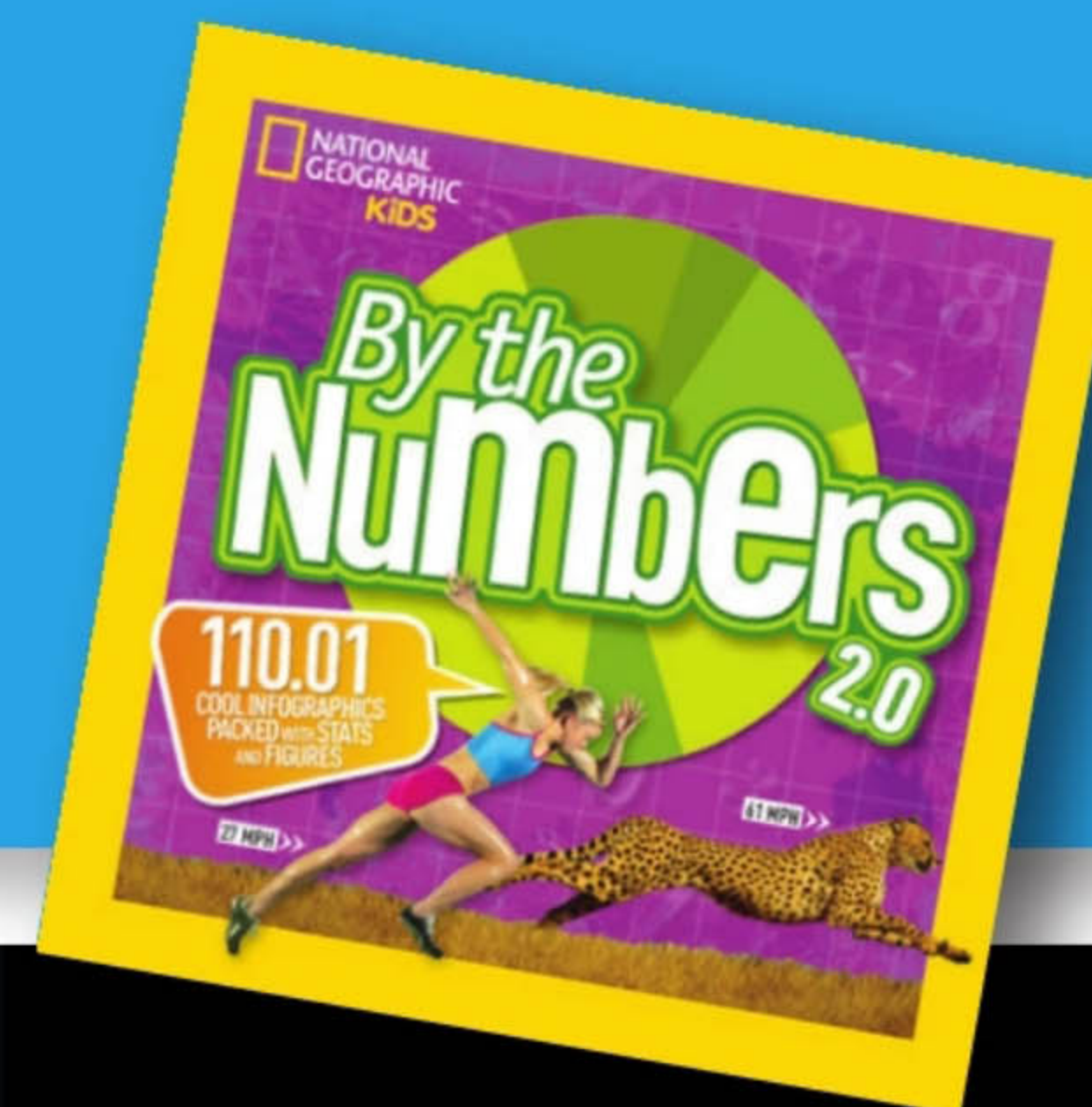
20,000+

Pieces of **debris** larger than a **tennis ball** orbiting Earth.

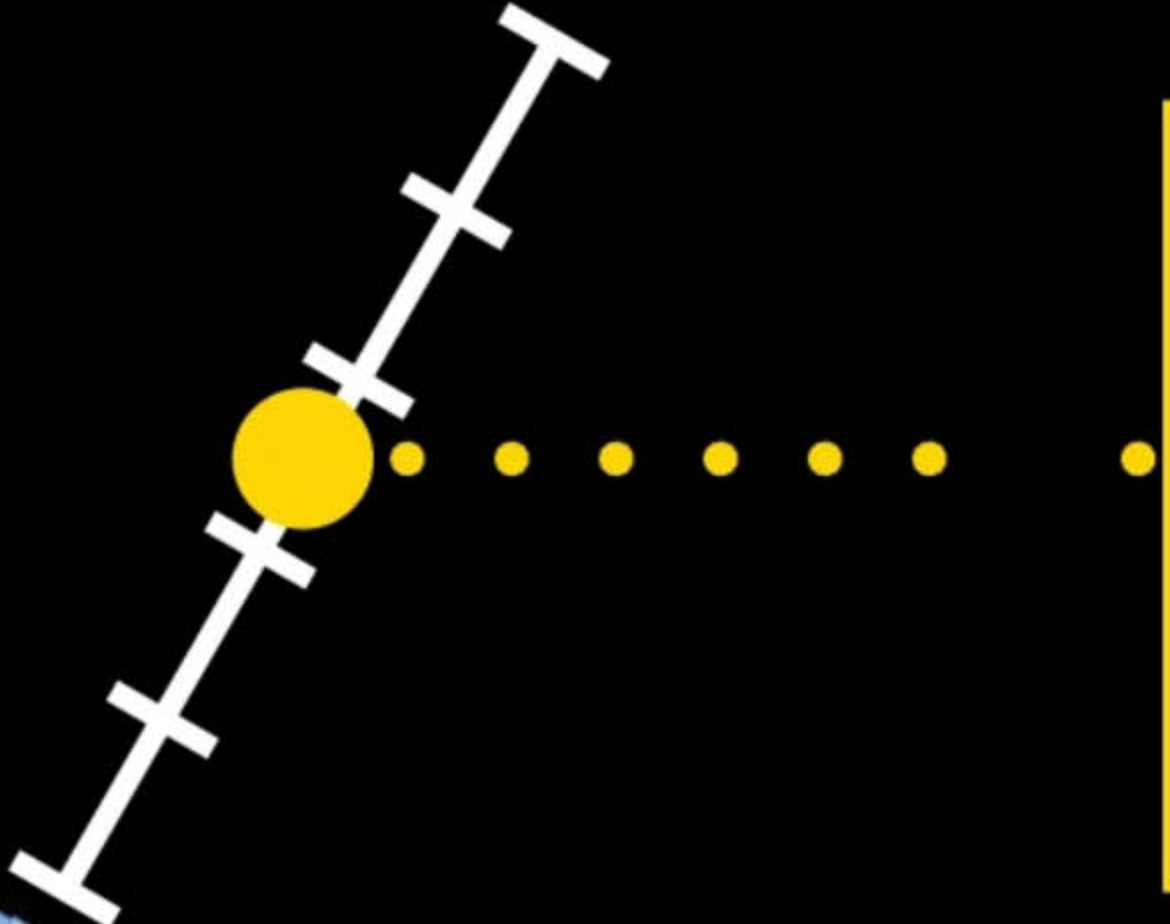
MILLIONS

Pieces of debris that are so **small** they can't be **tracked**.





FROM
THE
PAGES
OF



800 KM

Distance most space junk floats
above Earth's surface.



28,163 KMPH

Speed that objects orbit the Earth. At this
high speed, even the **tiniest piece of junk** can
be a **serious hazard** . Space shuttle windows have
been damaged by pieces as small as a **fleck of paint** !



500,000

Pieces of debris the size
of a **marble** or larger.

12



Number of telescopes the Falcon Telescope Network uses around the world to track objects floating in space - there's one in **Canberra** !

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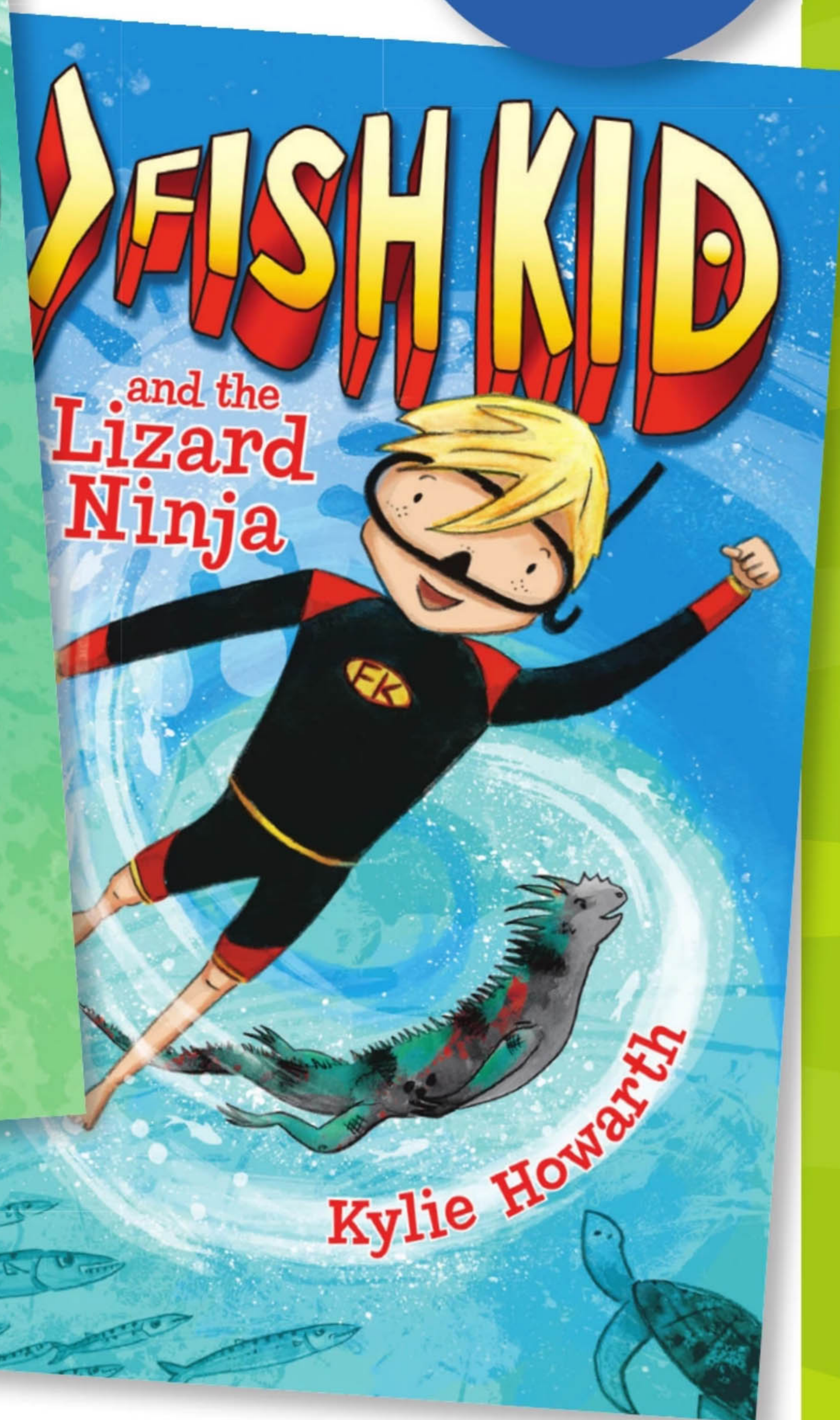
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FUN STUFF

GAMES, LAUGHS, AND LOTS TO DO!

RAINFOREST FUN

Test your knowledge of jungles and the creatures that live in them with our bumper crossword! **Answers on page 49**



2 DOWN

4 DOWN

Use the picture clues to help!



6 DOWN



18 DOWN



20 ACROSS

ACROSS

- 3 Overlapping branches and leaves at the top of the rainforest (6)
- 7 Often derived from rainforest plants. Used to treat illnesses (8)
- 8 Small Central American country, known for its biodiversity (5, 4)
- 10 _____ rainforest. Hottest, wettest type of forest (8)
- 12 Another word for a rainforest (6)
- 15 World's largest rainforest (6)
- 16 A word that describes when trees are chopped down (13)

- 17 Curved yellow fruit originally found in rainforests (6)
- 18 Slowest moving mammal on Earth (5)
- 20 _____ poison dart frog. Amphibian named after a sweet red fruit (10)

DOWN

- 1 Rosette-covered wild cat from South America (6)
- 2 Large pig-like mammal with a mini 'nose trunk' (5)
- 4 Small primate named after an 8-legged insect (6, 6)

- 5 Big-beaked bird (6)
- 6 Bright red parrot. Also has yellow and blue feathers (7, 5)
- 9 Many rainforests are cut down to make way for plantations of this (4, 3)
- 11 Sharp-toothed fish, found in the Amazon River (7)
- 13 _____ beetle. Insect with huge horn named after an African mammal (10)
- 14 Ape, known as the 'king of the swingers' (9)
- 18 _____-glider. Small sweet possum that can glide between tree branches (5)
- 19 Stripy big cat (5)

RAFT RESCUE!

Ask a friend to give you words to fill in the blanks in this story without showing it to them. Then read it out loud for a laugh.

GRAMMAR TERMS!

Noun – a person, place or thing

Verb – an action word that describes what a person or thing does

Adjective – a word that describes a noun

Adverb – a word that describes a verb



My family went on safari in _____ to ride a raft down the _____ and check out
 _____ country moving body of water
 _____. I boarded first. Suddenly the raft began to _____. I was _____
 water animal, plural verb verb ending in -ing
 down the _____ by myself! _____ km later a bunch of _____
 liquid large number something that flies, plural
 surrounded me. They flapped their _____, then without warning they grabbed my _____
 animal body part, plural article of clothing
 and lifted me high into the air. " _____!" I yelled. When I finally got the nerve to look down,
 exclamation
 I saw some _____ cubs and a(n) _____ that could run
 furry animal colour spotted animal
 faster than _____. Then I spotted my parents. "Thanks!" I called to the fliers as they
 famous athlete
 _____ me on the ground. No one at home will believe this _____ tale.
 past-tense verb adjective



JUNGLE SPOT THE DIFFERENCE

Can you find 20 differences between these two rainforest scenes? [Answers on page 49](#)

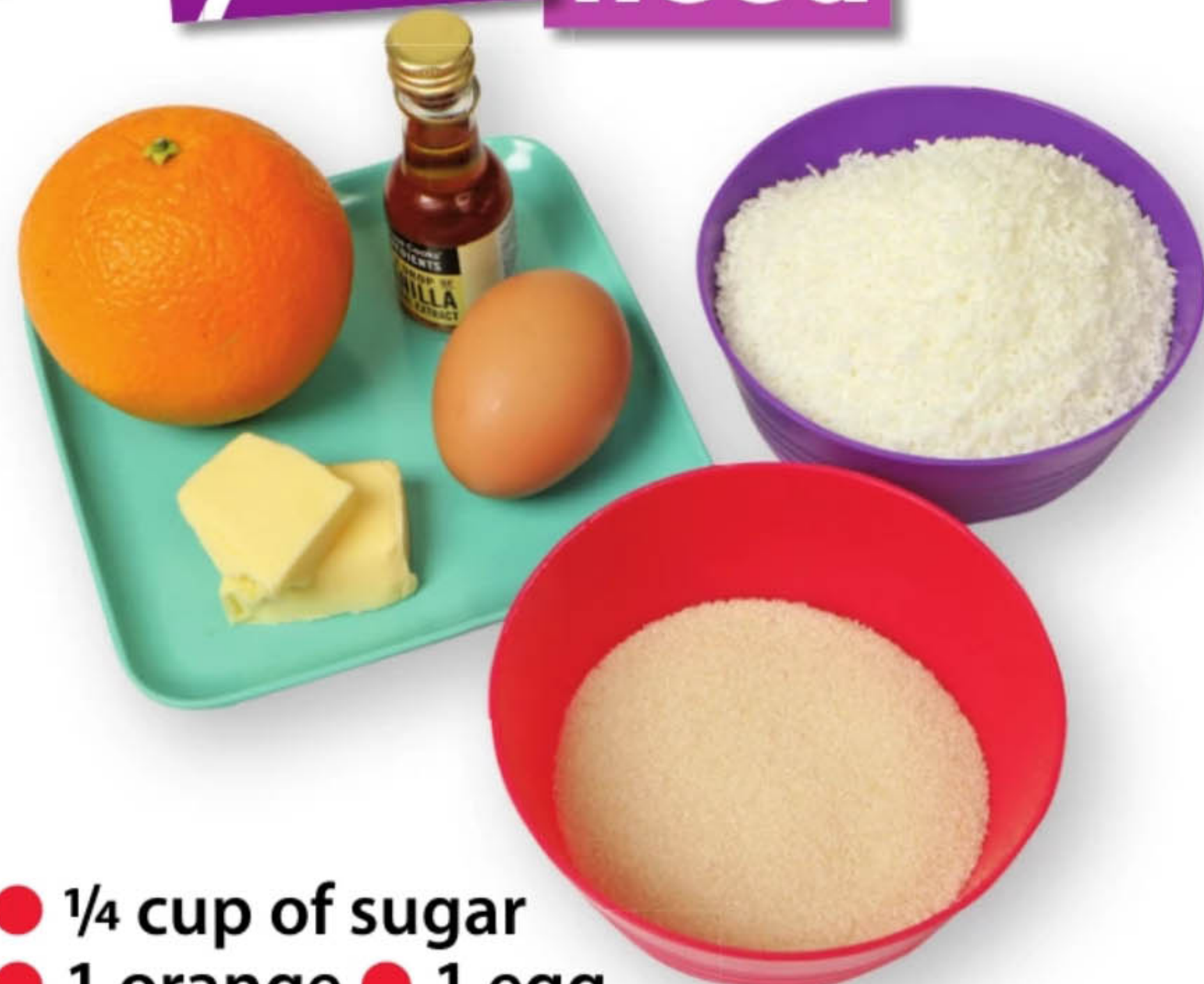




FUN STUFF MAKE IT

COCONUT & ORANGE MACAROONS

What you'll need



- 1/4 cup of sugar
- 1 orange ● 1 egg
- 1 tablespoon of butter, melted (ask an adult to melt it for you)
- Vanilla extract ● Salt
- 2 cups of desiccated coconut

Makes
12-16

Start here!

- 1 Zest (finely grate) your orange until you have around a tablespoon of peel.



- 2 In a large bowl, stir the sugar and orange zest together. Add an egg and the melted butter and mix well.



TOP TIP
These macaroons will make an awesome snack for Easter!

Nom, nom, nom!

- 3 Next, squeeze in the juice from half your orange, half a teaspoon of vanilla essence and a pinch of salt. Then mix together.



- 5 Line a baking tray with greaseproof paper. The mixture will be quite crumbly so use a small scoop or soup spoon to measure out rounds of the mixture, about 5cm wide.



ORANGE

Tuck in to a totally tropical treat!



4 Sprinkle in the coconut and stir until it's all combined.



6 Ask an adult to bake your macaroons for 10–15 minutes in an oven heated to 180°C / Gas Mark 4. Take them out when they're a light golden brown colour. Yum!

Thanks to Stella. Photos © Tim Roney.

FUN STUFF ANSWERS

MISSING PIECES

(page 33)

1 - 3 and 2 - 1

LOST LETTERS

(page 33)

The word is **PHANTOM**

JUNGLE SPOT THE DIFFERENCE

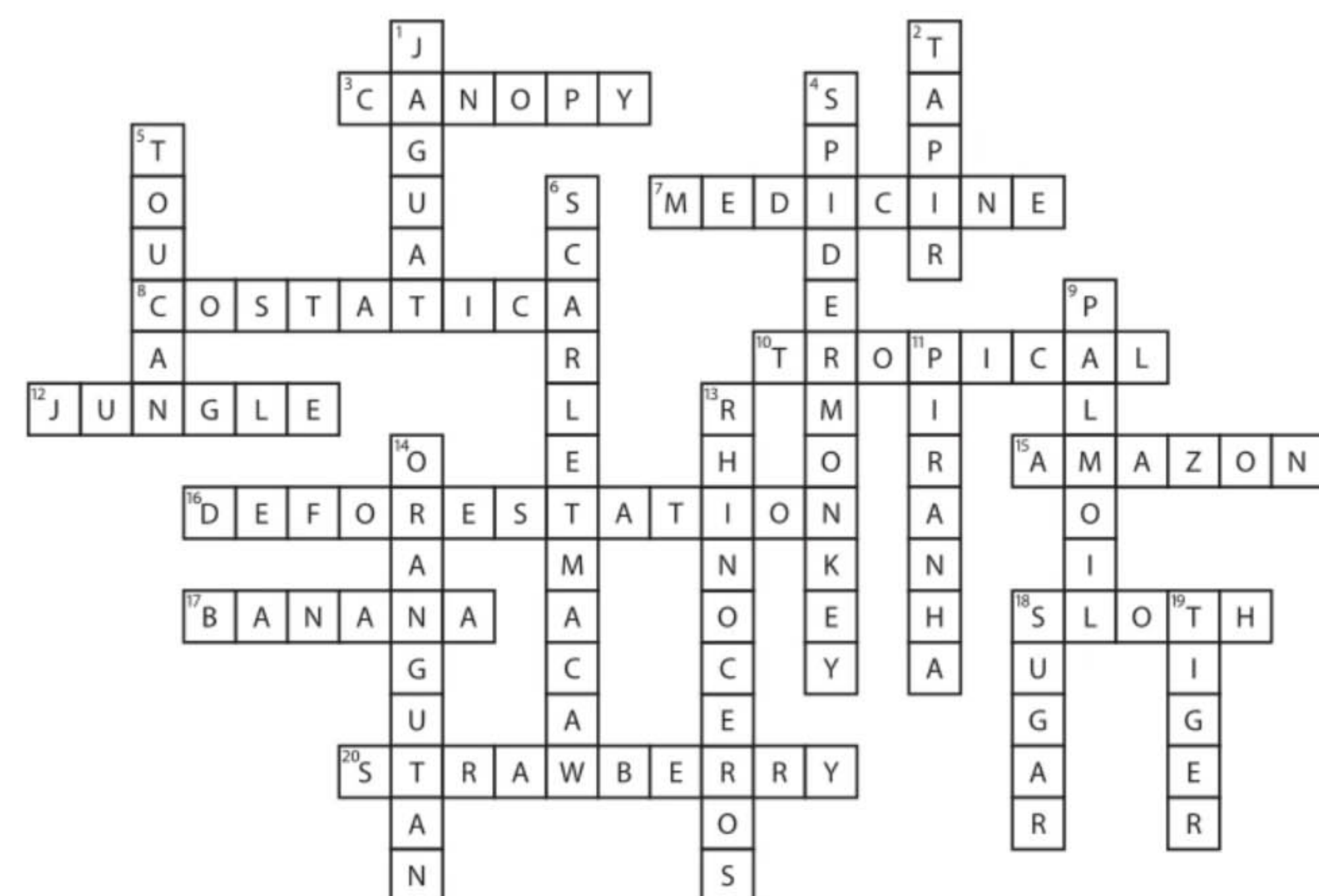
(page 46)



The April Fool's story this issue is on page 5 – *Child steals penguin from zoo!*

RAINFOREST FUN

(page 44)



THE LAST LAUGH

Q. Why can't jaguars hide?

A. Because they're always spotted!

Q. What's the difference between a wet day and an injured lion?

A. One pours with rain and the other roars in pain!

Q. What do you get if you cross a centipede with a parrot?

A. A walkie-talkie!

Q. What do you get if you cross a fish with an elephant?

A. Swimming trunks!

Q. What's a crocodile's favourite game?

A. Snap!

Q. How do you make toast in the jungle?

A. Put it under the gorilla!

Q. What do sloths like to read?

A. Snooze-papers!

WACKY WORLD!

Check out the planet's strangest pictures...



Hair-larious



What's the craziest hairdo you've ever had? Well, we bet it's got nothing on these frosty folk! They've all entered this year's **Hair Freezing Contest** at **Takhini Hot Springs** in **Yukon, Canada**. The rules are simple – when temperatures plummet below **-20°C**, competitors **dunk their heads** under the **warm water**. Their fuzz then **freezes** when they come up for air. Cool! Who do you think has sculpted the silliest style?



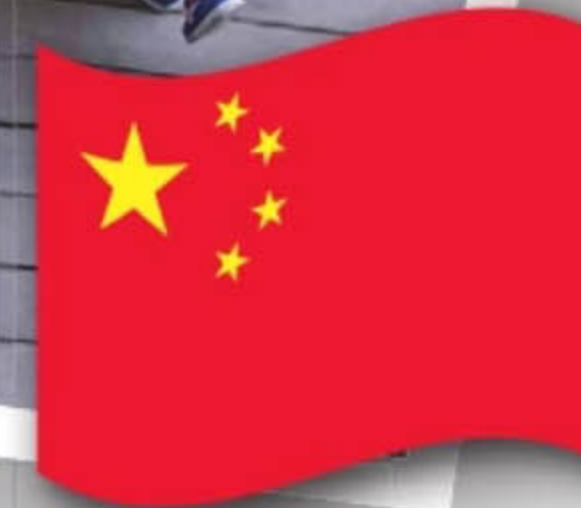
Porky pal

Ok, pigs might not fly, but **LiLou** the **therapy pig** helps make flying less stressful. LiLou and her owner **Tatyana Danilova** sit with **nervous passengers** at **San Francisco Airport** in **California, USA**, before they board their planes, helping them stay calm. Aww!



Wheelie good reads!

Designers **Luo Yujie** and **Lu Zhuojian**, from **Beijing, China**, have come up with an ingenious way to repurpose **unwanted bicycles** and **scrap metal** – turning them into **mobile libraries**! This one, known as the **Shared Lady Beetle**, is shaped like an insect, and is filled with **second-hand books**. Brilliant idea!



WINDOW DRESSING

Have you ever seen a **window cleaner** in **fancy dress**?! This worker, snapped in **Tokyo, Japan**, was dressed as a **rat** to celebrate the **Chinese New Year**.

FLY HOME

Check out **Said Jammal's** surprising home! Said, from **Abuja, Nigeria**, lives in a pad shaped like an **aeroplane**!



SPOOKY COSTUMES

This funny-looking fella, pictured at the recent **Sylvesterchlausen festival** in **Switzerland**, was pretending to be **Chlaeuse** – a character said to scare away evil spirits.



Art Editor Ed White
Editor Georgia Harrison
Digital Editor Gemma Chandler
Senior Designer Claire Brisley
Staff Writer Alexander Tan
Promotions & Partnerships Director Tracey Steel
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Creature Media Australia Pty Limited
 Level 13, 135 King Street, Sydney
 NSW 2000 Australia

Editorial enquiries editorial@ngkids.com.au

Promotions & Partnerships enquiries
 tracey@ngkids.com.au

Financial enquiries admin@ngkids.com.au

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In next month's NG KIDS...

On sale
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April*
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it!

I'm the
mane man
around
here!

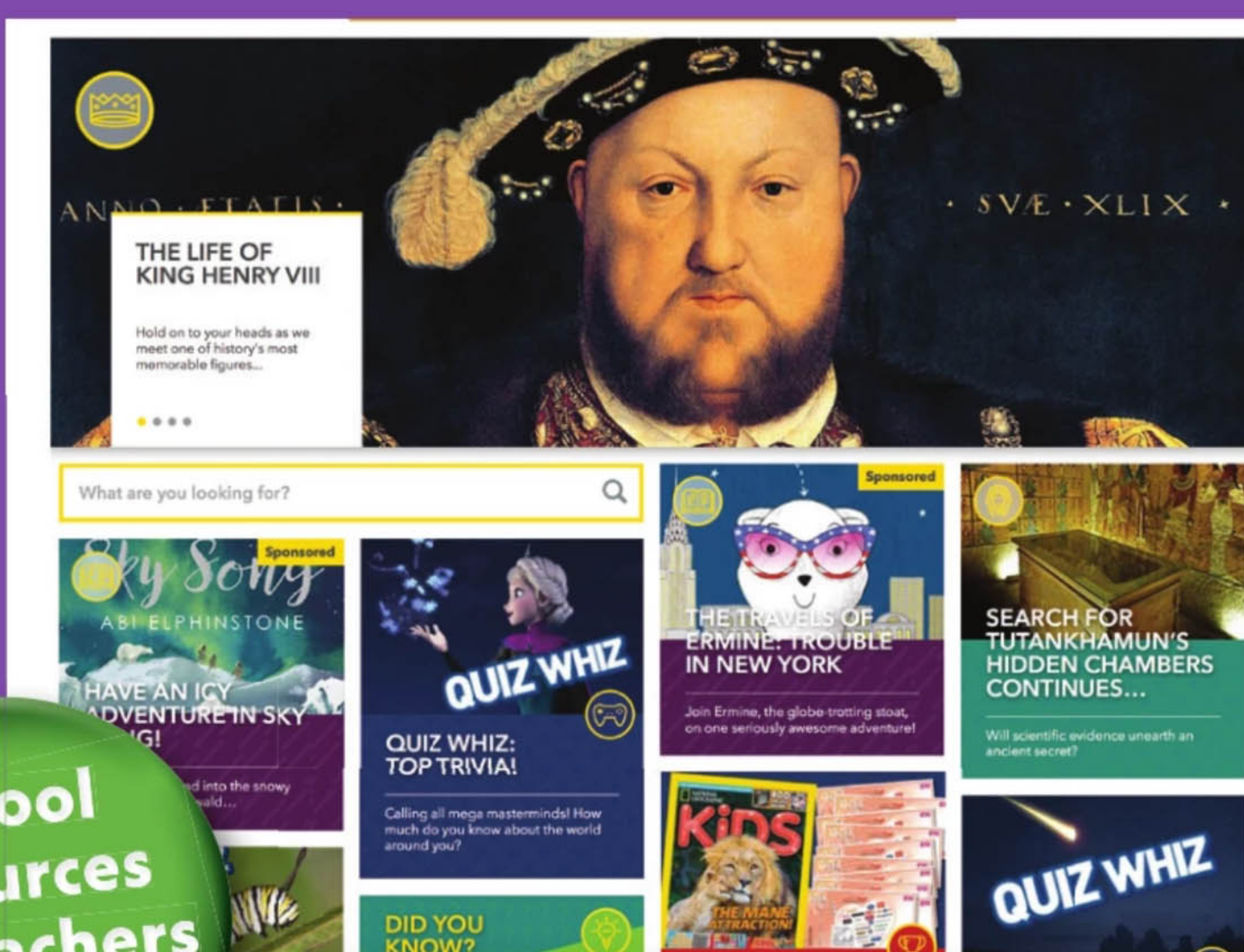
SPECIAL EARTH DAY ISSUE
**SAVE
THE
ANIMALS**

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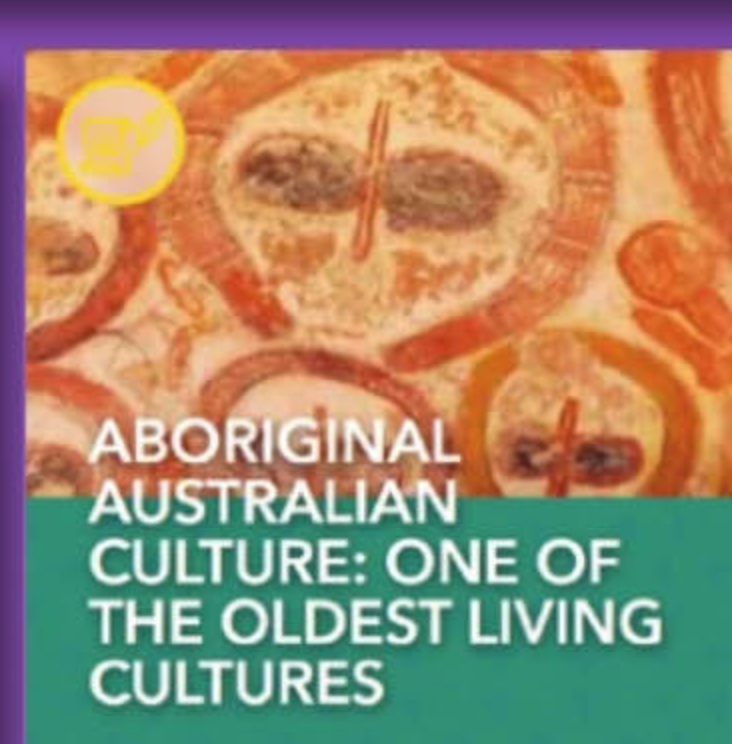
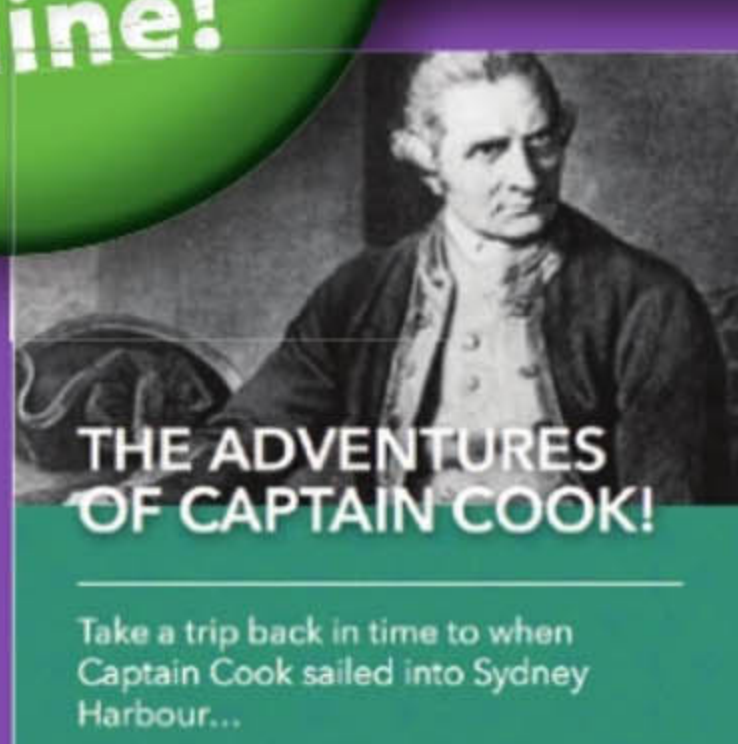
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How YOU can help
the world's wildlife!

PERSONALITY QUIZ
Which cool
critter are you?!

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INSIDE THIS MONTH'S EXCITING NAT GEO KIDS!

Fun features, fab photos, brain-teasing puzzles and fantastic prizes, plus...



**Epic
jaguar
journeys!**



**All about
Stephen
Hawking!**



**Sloth
spotting
in Costa
Rica!**



**Meet a
knock-out
shrimp!**



**Can you
find our
April Fool's
story?**



4 POSTERS!

**Funny
festive
parades!**

