



NATIONAL  
GEOGRAPHIC

155  
PRIZES  
INSIDE!



# KID

# HALLOWEEN SPECIAL!



SWIMMING  
**SEA**  
WOLVES!



HOW  
SQUEAMISH  
ARE YOU?

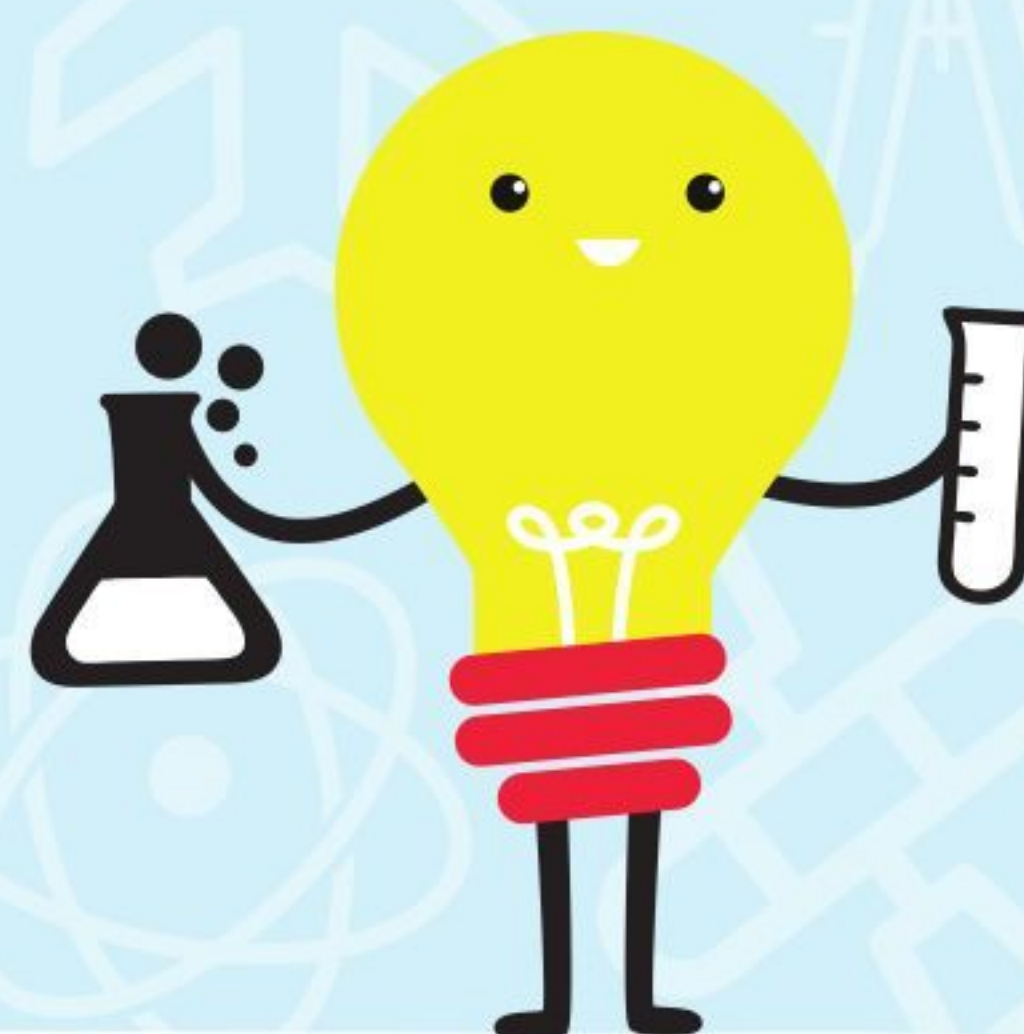
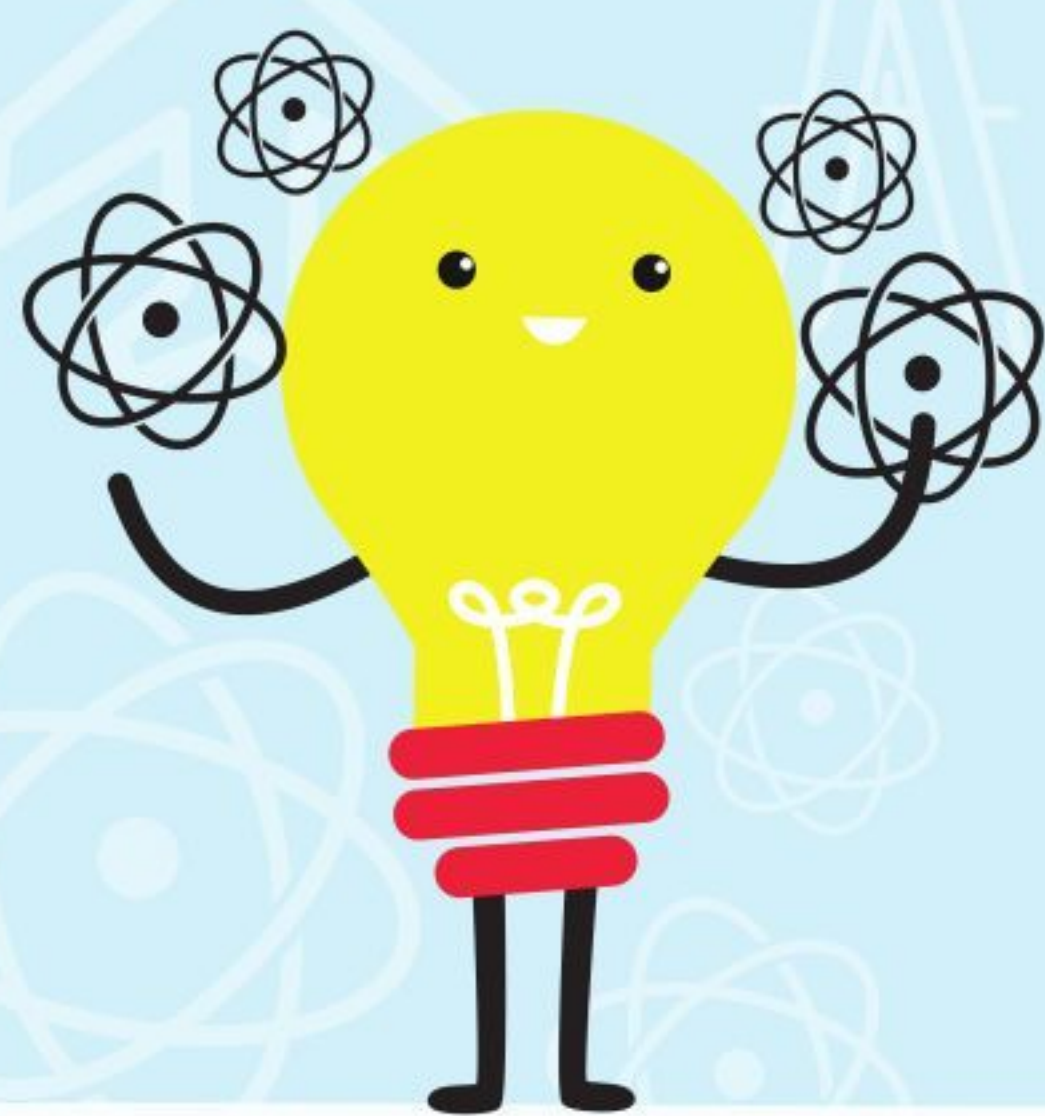


QUIZ

THE  
SCIENCE  
OF  
**SPOOKY**







# Imagine...

A flying car.

A hoverboard wheelchair.

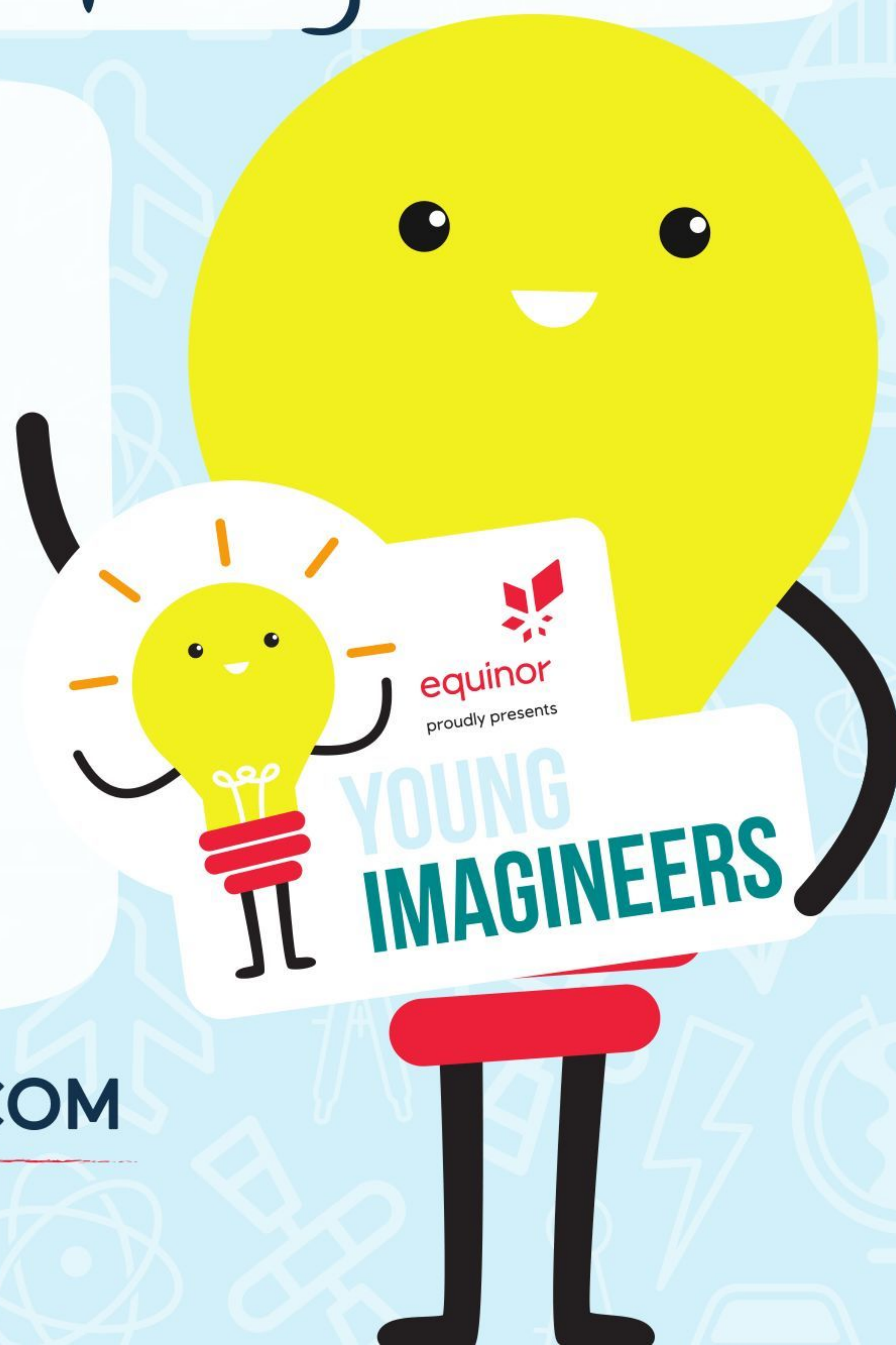
An underwater recycling robot.

Think a solar-powered, pollution-sucking robot pigeon is far-fetched? Well, that's what came from the mind of our winning Young Imagineer last year.

**If your child is aged 7-14 and has an idea that could change the world, visit the site below to upload these ideas by 27th October.**

**Just ask your child to draw a design and explain it in 100 words, and they could have their invention displayed at the Science Museum in London.**

What an amazing prize! And who knows, maybe your child's invention will change the world forever!



**[WWW.YOUNGIMAGINEERS.EQUINOR.COM](http://WWW.YOUNGIMAGINEERS.EQUINOR.COM)**

Terms and Conditions apply, visit website for full details



## Happy Halloween!

We've put together a seriously spooky issue this month, featuring wacky wolves, eerie info and a fun quiz to find out how easily grossed out you are! Plus, learn the science behind our biggest (and strangest) fears!

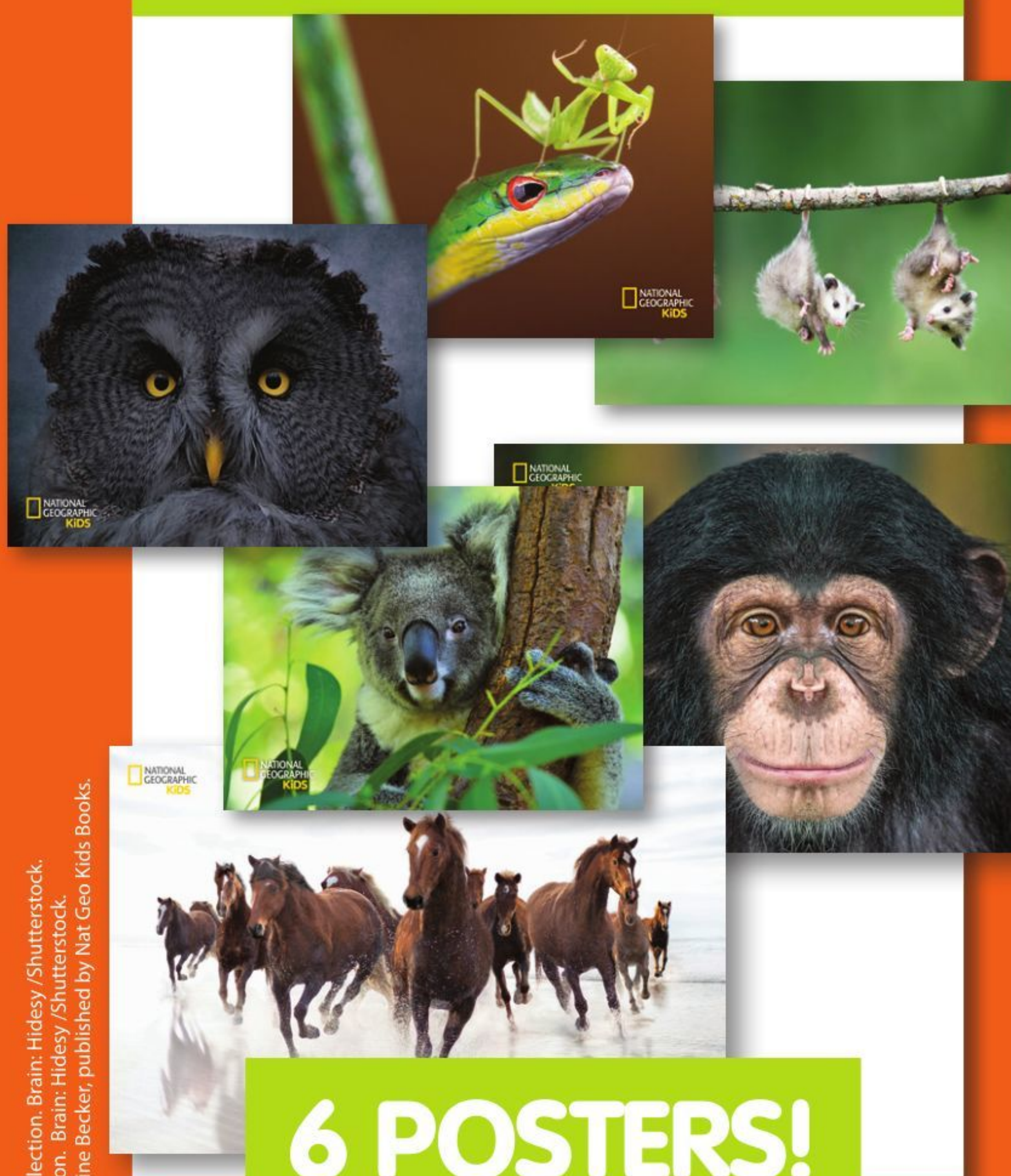
Also this issue, we take a trip around the solar system to learn about our neighbouring planets, and we meet a scientist who's desperate to go to Mars. Out of this world!

Plus, we have loads of posters, a bumper space wordsearch and tons of fantastic prizes, so get stuck in!

Editor, Tim



## FREE this issue...



## 6 POSTERS!

## Write to NG KIDS

Email [kids@ngkids.co.uk](mailto:kids@ngkids.co.uk)

Post National Geographic Kids, Third Floor, 12-14 Berry Street, London EC1V 0AU

Website [natgeokids.com](http://natgeokids.com)

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**Puzzle Answers** Oi, no cheating!



# INSIDE SCOOP

The latest news from around the globe...

## Global Climate Strike



People from all over the planet took to the streets on **20 September** to join the **biggest climate strike** in history! An estimated **four million** kids and adults from around **185 countries** – ranging from **Australia** to **Argentina** – took part in the protests to demand that **governments** take urgent action in the fight against the **climate crisis**.

Nat Geo Kids popped along to the **central London protests** to speak with the **young protestors**. Seven-year-old **Stella** told us that her headteacher had allowed **everyone in her school** the day off to strike. **Jacob**, 11, said: "I hope that the government will listen to us and that big companies will stop profiting off the planet!"

Did YOU head to a protest? Tell us on page 56!



Kids made lots of striking banners!



More than 100,000 people took part in strikes across the UK



There are around 3,500 seals in the River Thames!

## Baby seal bonanza!



Here's some **seal-y** good news – **138 harbour seal pups** have been born on the banks of the **River Thames**! The babies were spotted during the first ever count of seal pups by the **Zoological Society of London (ZSL)** and is extra impressive, seeing as the Thames was declared '**biologically dead**' in the 1950s.

The booming numbers of both **harbour** and **grey seals** suggests there's **plenty of food** for them to gobble and that the river's ecosystem is healthy! Scientists say the Thames is home to more than **100 species** of fish, including seahorses and sharks!

● Spotted a seal in the Thames? Record your sighting at [zsl.org/inthethames/](http://zsl.org/inthethames/)

# 3

## FAST FACTS!

### WORLD TOILET DAY

Unless we're *really* desperate, a trip to the lav is something we don't think about much. But **World Toilet Day** on **19 November** is a reminder that not everyone has the luxury of a loo...

**1** According to the UN, **4.2 billion people** across the planet don't have access to a **decent, safe toilet** – that's more than *half* the world's population! And an estimated **673 million** of these people have no option but to poop **outside**.

**2** This is a huge problem because **human waste** contains nasty diseases, and if it's not disposed of safely it can **get into drinking water**. Germs also spread when there's nowhere to **wash hands**. Every year around **432,000 people** die of **diarrhoea** caused by **poor sanitation**.

**3** So next time you **pop to the loo**, remember – a toilet is not *just* a toilet. It's a **life-saver** and **dignity-protector**. And without them, our lives would be very different. Find out more and take a quiz at [www.worldtoiletday.info/](http://www.worldtoiletday.info/)



Can you imagine life without a loo?!



**GET INVOLVED!**

## CALLING ALL INVENTORS!

The Young Imagineers competition is looking for **bright young minds** (like yours!) to answer this question – what **invention** would you create to make tomorrow's world a **better place**?

The creators of the ten most **imaginative designs** will be invited to London's **Science Museum**, where their entries will be judged in front of a **live audience**. The winner will then have their design made into a **3-D model** and **displayed in the museum** next year. Cool!

Last year's winner, ten-year-old **Millie**, invented a **Solar Powered Pollution Sucking Robot Pigeon** to help reduce **toxins** in the **air**! What wonderful design will YOU come up with?

● To enter, **sketch your invention**, describe it in up to **100 words**, and then upload it at **[youngimagineers.equinor.com/entries](http://youngimagineers.equinor.com/entries)**

It's last year's winner, Millie!

Hurry, because the deadline is **27 October!**

# MAKE IT A DATE

What's going on this month?



OCT  
27

**Diwali**

The festival of lights!



NOV  
1

**National Novel Writing Month**

Draft a whole book in 30 days!  
Get tips at [ywp.nanowrimo.org](http://ywp.nanowrimo.org)



NOV  
5

**Bonfire Night**

Remember, remember the 5th of November!



NOV  
11

**Remembrance Day**

A two-minute silence to think about the people lost in wars



NOV  
30

**St Andrew's Day**

It's Scotland's special day!

## Shocking news!



A new species of **electric eel** has been discovered in the **Amazon basin** – and it's a **record breaker**!

The **giant fish**, named **Electrophorus voltai**, can produce a massive jolt of **860 volts** – that's **210 volts more** than other electric eels! It uses its shock tactics to **hunt**, for **self-defence** and to **navigate**.

Experts think the eel's extra power **evolved** because the **highland waters** it inhabits **conduct less electricity**. Previously there was thought to be just **one type** of electric eel, but the researchers uncovered another species, too, taking the total to **three**! Who knows what else might be lurking in the Amazon!



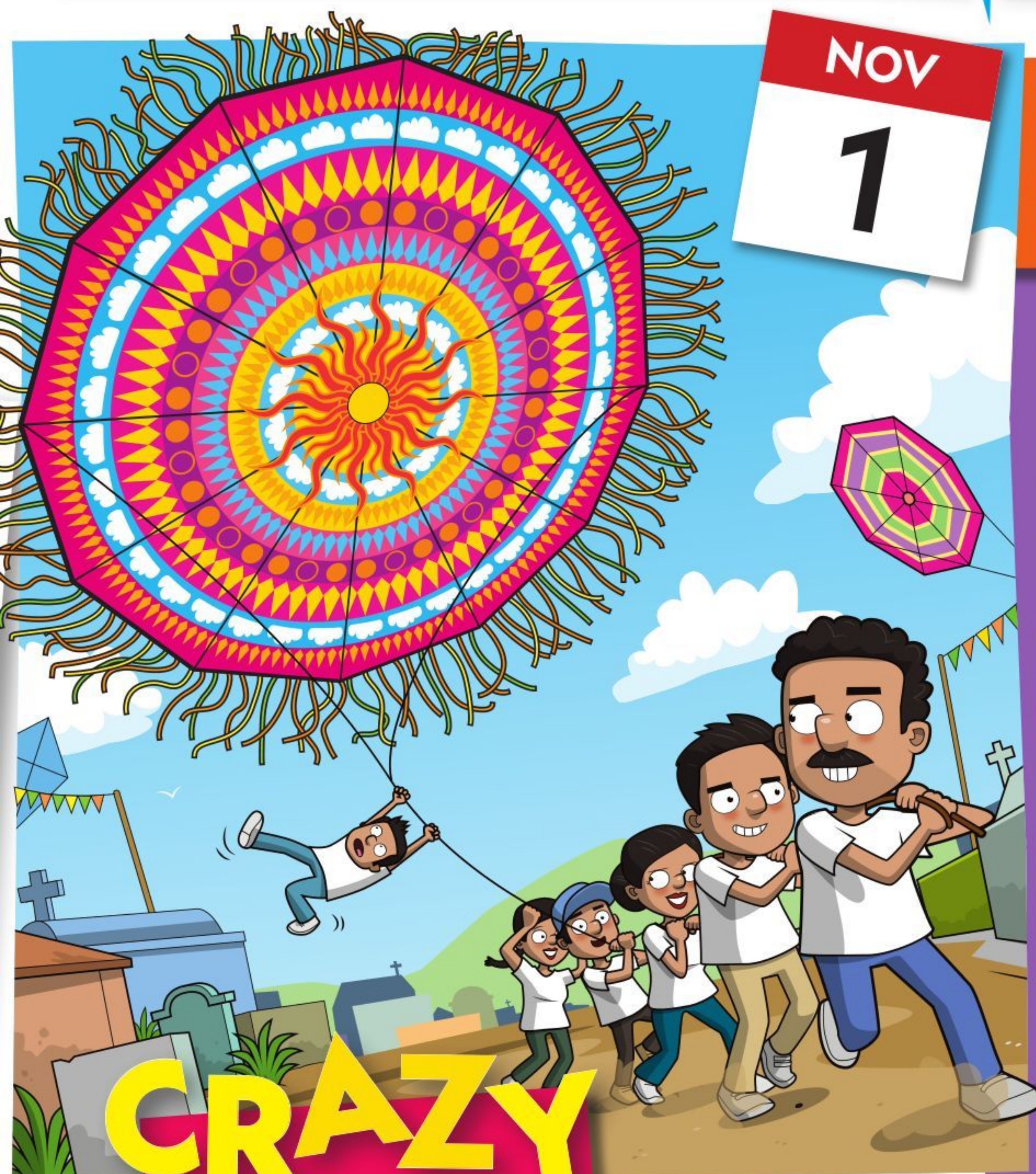
Electric eels can grow up to **2.5 metres long**!

NOV  
1

## Giant Kite Festival

In parts of **Guatemala**, a country in **Central America**, traditional **Day of the Dead** celebrations have the addition of **colossal kites**! For the past **3,000 years**, **barriletes gigantes** ('**giant kites**') have been crafted as a way to **honour the dead**. The colourful **circles** soar above cemeteries while local people **decorate** their ancestors' **graves** with flowers and eat picnics below. According to legend, the kites help people **communicate** with their long-lost loved ones, and keep away evil spirits. Each **hand-painted kite** can take up to **40 days** to make out of **bamboo frames, paper** and **cloth**.

Later, the kites are judged on their beauty and how long they can stay in the air – but because some are up to **36m across**, it often isn't long!



**CRAZY EVENT**



# WACKY WORLD!

Check out the planet's strangest pictures...



## Canvas cars!

Can't afford a camper? Then just strap a **tent** on to the roof of your banger! This old **Trabant**, a car that was popular in **East Germany** in the 1970s, has received the mattress makeover. Just hope occupants don't forget where they are when they leave the tent. Eek!



## Beagle B&B

Chainsaw artists **Dennis Sullivan** and **Frances Conklin** love wooden canines. So much so that they've built a bed-and-breakfast hotel that's **shaped like a beagle**. The **Dog Bark Park Inn**, in **Cottonwood, Idaho, USA**, features two hefty hounds, the largest of which – **Sweet Willy** – guests can sleep in. Paw-some!

## Metal magic

Japanese metalworker **Taiichiro Yoshida** crafts **leaves, flowers** and **butterflies** out of **silver, bronze** and **copper** – and then pieces them together to create the **bodies of mammals** and **birds**. Check out these two crazy creatures here!



## HIGH-HEEL CHAIR

How's this for a silly seat? The quirky **shoe-shaped** lounge was snapped in **Tokyo, Japan**. Hope it's comfier than the real footwear!



## PHONE SLOW!

Europe's first '**mobile phone slow lanes**' are being trialed in **Manchester**. Pedestrians are able to text or call while they walk without colliding into others!



## BARKING BADDIE

Meet **Lucky** the **Chihuahua**. The two-year-old rescue dog from **Thailand** has become an internet sensation because his facial markings make him look like a **Bond villain**. Barking mad!



# SPOOK THE DIFFERENCE

Find 8 mysterious differences between the two pictures below



## THE ADDAMS FAMILY

IN CINEMAS OCTOBER 25



UNIVERSAL

U

BRON

MGM

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Answers: 1: Picture Frame 2: Candle 3: Eyebrows 4: A on Fireplace 5: Spot 6: Mustache 7: Tie 8: Fire in Fireplace



# WHAT'S UP?

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

ENTER ALL COMPS ON PAGE 55!



## The Addams Family

Thought your relatives were weird? They've got nothing on **The Addams Family**, the spookiest, kookiest new neighbours in town! When the Addams Family move to **New Jersey** there's no end to the chaos that follows in their wake, from mischief making at **middle school** (aka 'children's prison'), to threats from **outraged neighbours**! Expect plenty of cackles in this freaky animation.

● In cinemas **25 October**

.....  
**WIN!** We've got **three** goody bags up for grabs, which include **figurines, stickers, a plush spider backpack** and a copy of ***The Addams Family: The Story of the Animated Movie*** book by **Calliope Glass**. Magic! For your chance to win, just answer this question...

- Q What's the name of The Addams Family's daughter?  
 a) Wednesday  
 b) Thursday c) Friday



Morticia, Gomez (right) and the family are back in this animated adventure!



## Polar Squad

In his attempt to become a member of the **Arctic Blast Delivery Service** (despite being an **Arctic fox**, not a **sled dog**!), our hero **Swift** agrees to deliver a **mysterious parcel**. But he soon stumbles into the villainous **Otto Van Walrus**, who has an evil plan to **destroy the Arctic**! Can Swift and his friends stop this blubbery baddy in time?

● In cinemas from **8 November**



## Frozen II

Join Elsa (left), Anna, Kristoff and Sven on another icy adventure!



It's six long years since the first **Frozen** film came out, filling the world's earholes with the song **Let It Go**! Expect plenty more irritatingly catchy tunes in the new movie, which follows sisters **Anna** and **Elsa** on a quest to seek the source of Elsa's icy **super powers**. Pals **Olaf** the snowman, **Sven** the reindeer and **Kristoff** the iceman are along for the (sleigh) ride, too. *Brrrrr-iliant*!

● In cinemas **22 November**



## Circus 1903

Meet Peanut and Queenie!



Roll up, roll up, for this sensational '**golden age**' **circus experience**, featuring a huge cast of **strong men, contortionists, acrobats, musicians, knife throwers** and more! There's even some remarkable **puppetry** which puts '**elephants**' safely back in the ring. Magic!

● **Circus 1903** starts **25 October** in **Birmingham**, then travels to **Salford, Dublin** and **London**. For details and tickets, head to **circus1903.com**

.....  
**WIN!** We've got one family ticket to **Circus 1903** up for grabs! For a chance to win, answer this question...  
 Q What's the name of the structure where a circus takes place?  
 a) Big Tap b) Big Tip c) Big Top

Ts & Cs: The prize is four tickets to see **Circus 1903** at either The Lowry in Salford (19–24 November), Bord Gáis in Dublin (27 November–1 December) or Southbank Centre in London (19 December 2019–5 January 2020). Not valid for weekend performances. Other blackout dates and exclusions may apply. Travel not included. The prize is non-transferable and there is no cash alternative.



KEY



Event



Movie



DVD



App



Book



TV

## 4 FANTASTIC ANIMALS!

Meet some of the creatures featured in *Wild Lives*, our fact book of the month!

### CONGO - THE ARTIST CHIMP

In the 1950s, a chimpanzee named **Congo** was given some art materials by animal expert **Desmond Morris**, who was making a TV show at **London Zoo**. Congo seemed to love making marks with his **pencils and paints**, and would get cross if the canvas was removed before he was finished! In 1957, a gallery put on

an exhibition of his work – and world-famous artists **Picasso** and **Miro** even bought some of his paintings!



### ENDAL - THE LIFE-SAVING DOG

**Endal** the **Labrador retriever** was trained as an **assistance dog** to help a man named **Allen Parton**, who was in a **wheelchair**.

The clever doggy could understand and respond to over **100 hand signals**! But one day, Allen was **hit by a speeding car**, and Endal did something even **more**

amazing – he **moved Allen** into a **safe position**, **covered him** with a **blanket** and **barked for help**. What a hero!



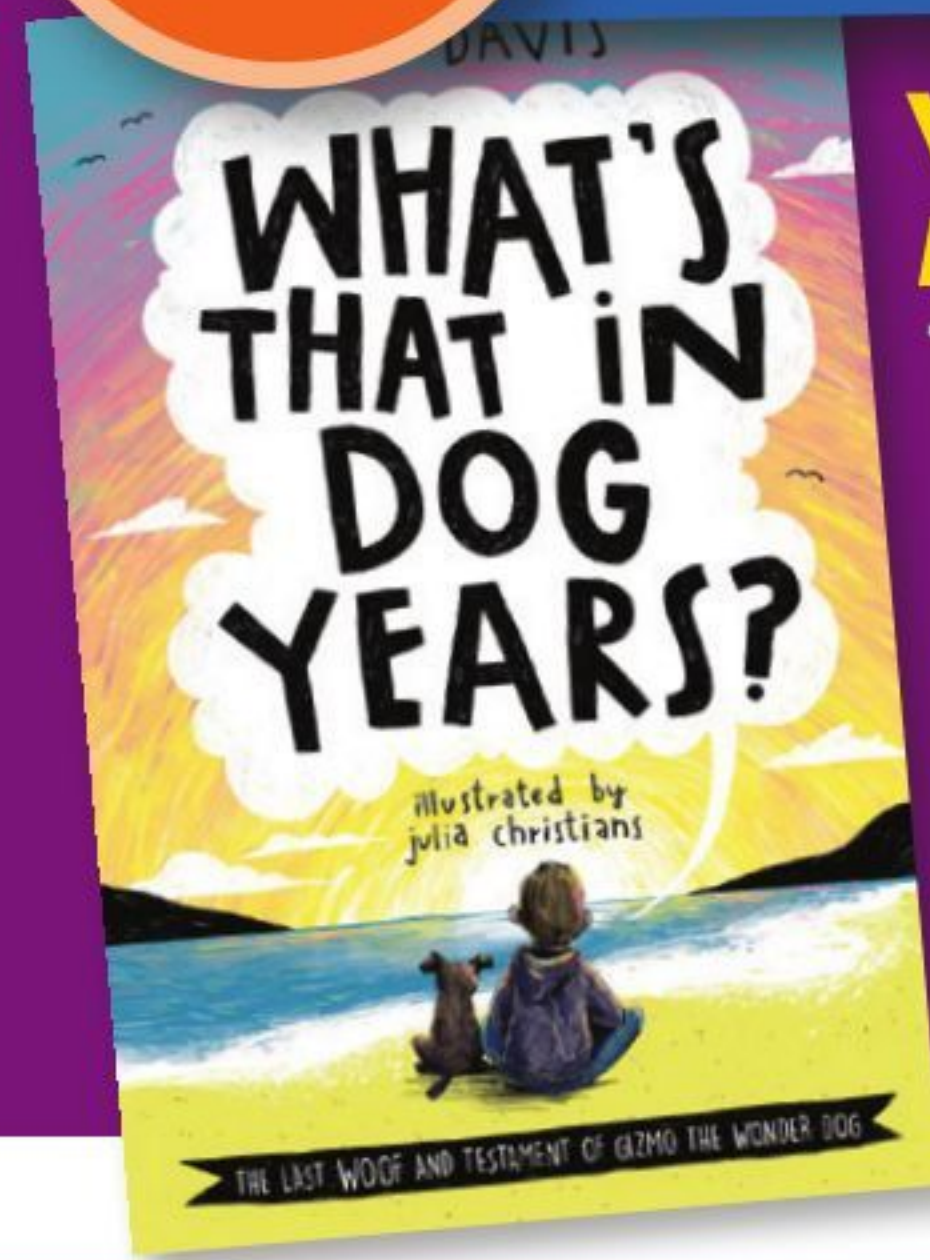
### HOOVER - THE TALKING SEAL

Rescued when he was a pup by fisherman **George Swallow**, **Hoover** the seal spent his early life living in George's **bath**!

When Hoover moved to a new home in an **aquarium**, the staff were astonished to find that Hoover could '**speak**' in a deep human-like voice, saying "**Hello there!**" and "**Get outta here!**" They realised he sounded just like George, and must have learned to copy him as a pup!



## Your book reviews



### What's That In Dogs Years? Ben Davis Illustrated by Julia Christians

This gripping book is about a loving friendship between a 13-year-old boy named **George** and his dog **Gizmo** who is very enthusiastic, entertaining and funny. The story is **heartwarming** and **humorous** but also **sad** – it will take you on an emotional journey that will, in turn, bring the story to life.



Caitlin, 10

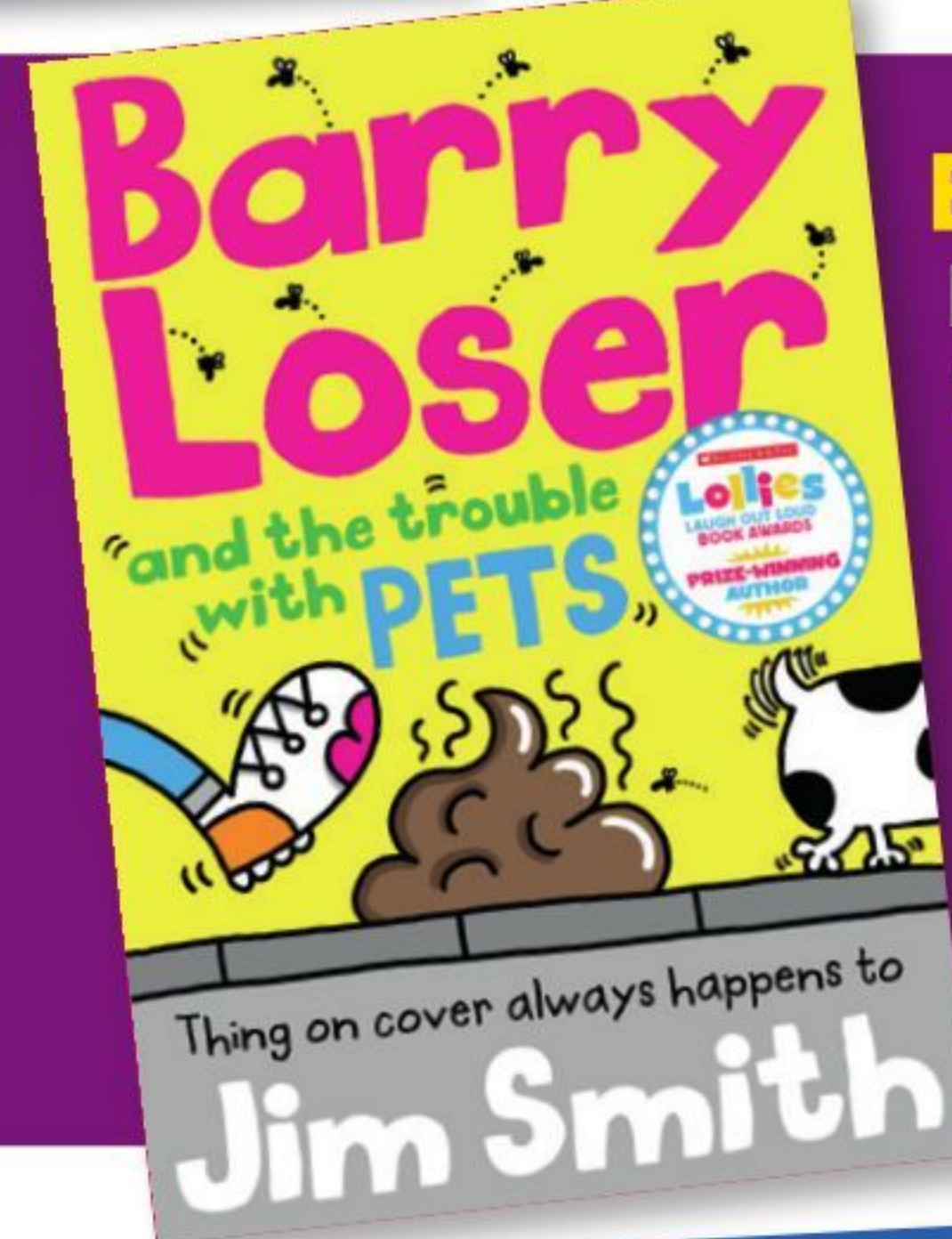
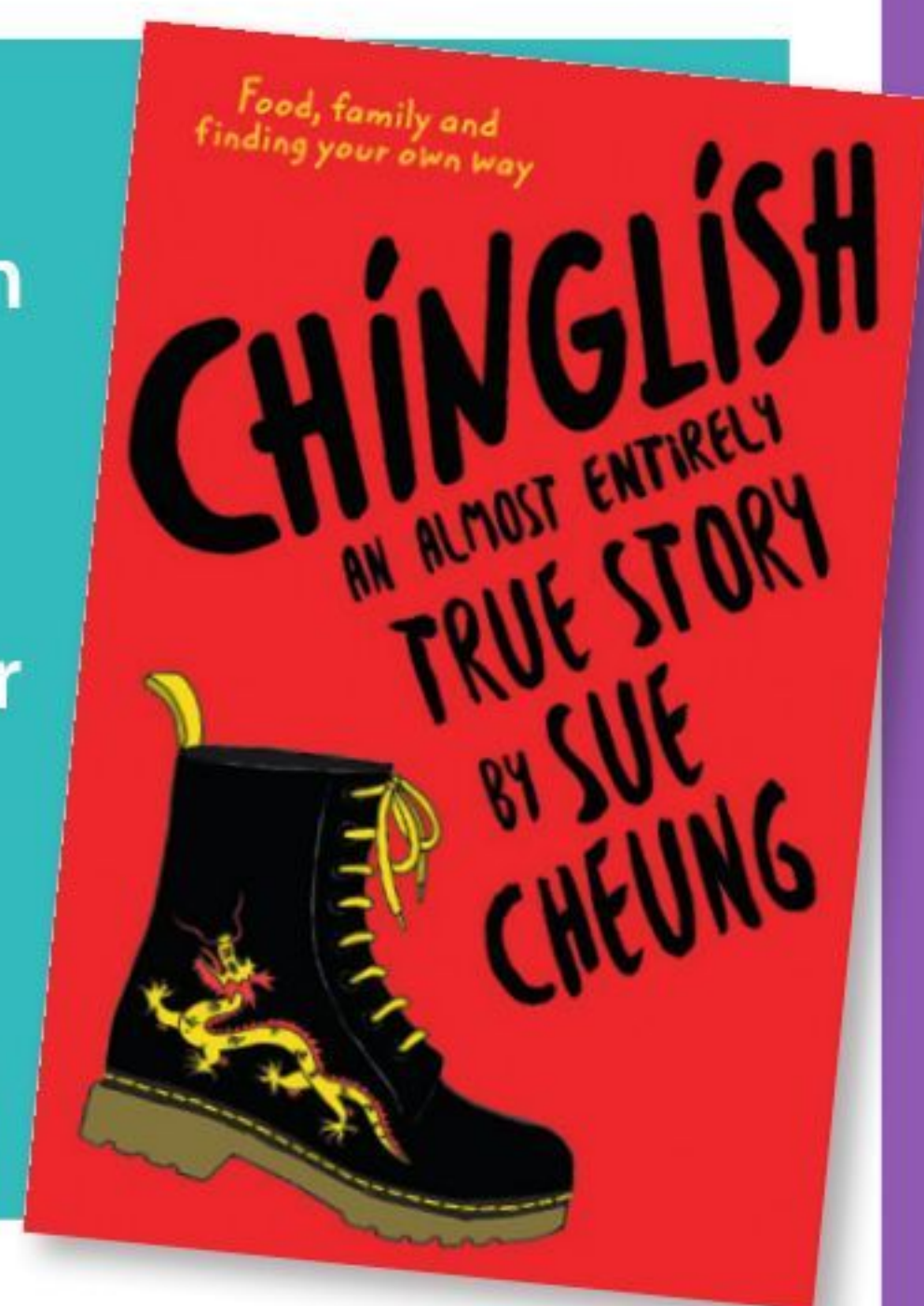
### Chinglish Sue Cheung

Jo is an artistic girl who lives in **England** but whose parents are both **Chinese**. She's very **embarrassed** about having to move to a small flat above her dad's new Chinese takeaway. Luckily, Jo's friend **Tina** is always there for Jo to **protect** her from **bullies** at her new school. Tina's my favourite character because she always makes the reader **laugh out loud**.

There are elements of **sadness** in this book that draw you in and make you want to continue reading until you get to the end.



Laura, 11



### Barry Loser and the Trouble with Pets Jim Smith

I read most of this book **aloud** with my friends, taking it in turns to read a page. We all **laughed** so hard when it talked about **poo** and **farts**, which was a lot! It was quite a **rude** book but very funny! I liked the book even more because it had a **dog** in the story. The dog was a **sausage dog**, which is my **third favourite** breed of dog!

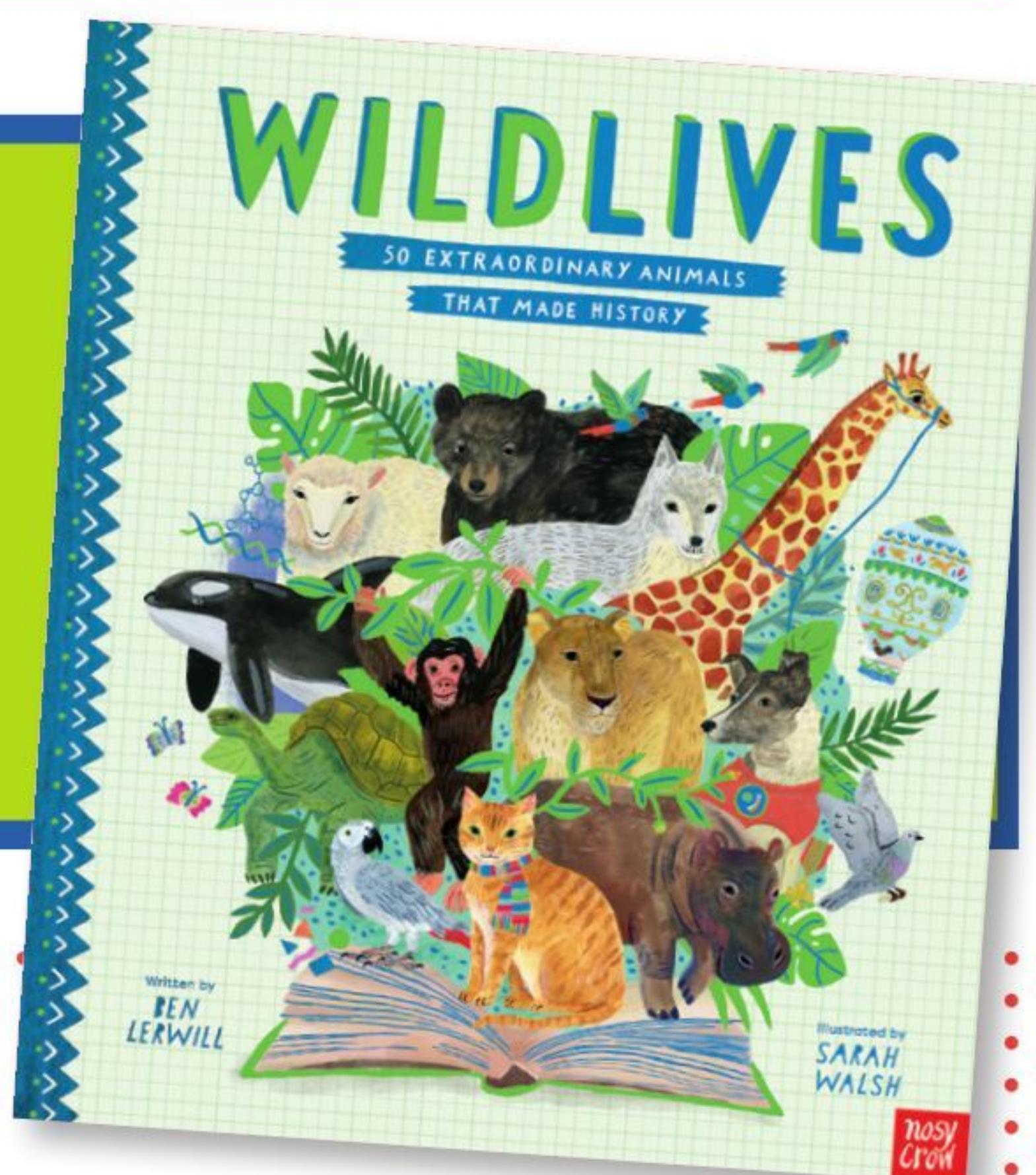


Arthur, 9

## FACT BOOK OF THE MONTH

### Wild Lives Ben Lerwill and Sarah Walsh

It's not only **humans** that can be **inventors**, **educators**, and **pioneers** – **animals** can be, too! This beautiful book, filled with **illustrations** and original **photos**, tells the stories of **50 animal heroes**, each of whom was **extraordinary** in their own way.



A goat called **William Windsor** served in the **British Army** from 2000–2009. Junior soldiers even had to salute him!



## WIN!

Five winners will scoop **all four** of these books plus a **Wild Lives** calendar chart!

**Q** What was the first name of famous painter Picasso, who bought art by Congo the chimp?  
**a)** Pablo **b)** Paolo **c)** Paul



THE

# BIG PICTURE

NAT GEO KIDS'  
image of the month



## Fin whale's demise



Photographer **Mat Beetson** scooped first prize in the **2019 Australian Geographic Nature Photographer of the Year** competition with this striking shot of a **dead beached fin whale** being circled by **hungry sharks**. The shocking scene, which he captured using a **drone**, is made more powerful by its **beautiful setting**.

The judges said the "unique and exciting" photo, taken at **Cheyne Beach** in **Albany, Western Australia**, reminded them of the "**ecological function** of the dead whale, providing **food** and **energy** to the living organisms around it." Nature *whale-y* is cool, isn't it?







# SURF Pups

**5** ways coastal wolves  
thrive by the sea







A wolf steps out on to a sandy **beach**. Picking up a scent, it paws at the wet sand in search of a **buried clam**. Crunch! The wolf crushes the clam in its jaws and swallows. Still hungry, it splashes into the **ocean waves** and swims to a nearby island to find more food.

Wolves on the beach might sound strange, but some **special grey wolves** have been living by the seaside for thousands of years. Known as **coastal wolves**, more than **2,000** of these canines live among the islands and coastal rainforest of **western British Columbia** in **Canada**, stretching up into **southeast Alaska** (see map, bottom right). "Their environment is very different from that of any other wolf," says wildlife researcher **Chris Darimont**. "So they've had to adapt to this unique place." Check out five ways these howlers are living their best life on the beach...

Wolves often howl in a chorus.

Coastal wolf pups start to learn how to swim when they're about two and a half months old.

Coastal wolves are valued in many indigenous cultures – some groups consider them ancestors!



1

## BEACH HAIR, DON'T CARE

You might expect **coastal grey wolves** to be, well, grey – like most grey wolves. But coastal wolves' fur is often **streaked** with **reddish-orange highlights**, a shade similar to a common **seaweed** on the shore.

"The colour matches almost perfectly," Chris says. "It's thought the colouring helps **camouflage** these **predators** while they're searching for prey on the beach."

Coastal wolves also have **less underfur** than other grey wolves. This **cottony fluff** helps wolves living in **snowy places** keep **warm**, like the **stuffing in a winter jacket**. But coastal wolves' habitat is so **mild** they don't need the extra layer. You probably wouldn't want to wear a **winter coat** on the **beach**, either!





# WHAT IS AVAXHOME?



# AVAXHOME-

the biggest Internet portal,  
providing you various content:  
brand new books, trending movies,  
fresh magazines, hot games,  
recent software, latest music releases.

Unlimited satisfaction one low price

Cheap constant access to piping hot media

Protect your downloadings from Big brother

Safer, than torrent-trackers

18 years of seamless operation and our users' satisfaction

All languages

Brand new content

One site



# AVXLIVE ICU

AvaxHome - Your End Place

We have everything for all of your needs. Just open <https://avxlive.icu>



2

A wolf's sense of smell is about a hundred times more sensitive than a human's.

## SEA SIZE

About the size of a **German shepherd dog**, coastal wolves are **20% smaller** than the grey wolves living in **North American forests**. Scientists think it could be because these **seafood eaters** don't need the extra strength. Coastal wolves grapple with **otters**, not gigantic **moose** like their inland cousins. "They aren't chasing **massive prey**, so they don't need the large body size to take them down," Chris says.

Happy wolves wag their tails!

Some coastal wolves have black fur.

Wolf siblings play, just like humans do!

## PACK LIFE

Coastal wolves might have a **different way of life** because of their **beach habitat**, but they socialise just like other grey wolves do – in a **pack**. "Packs are really just **families**," Chris explains. "They have a mum, a dad and lots of siblings."

All the **siblings** help the **alphas** (the mum and dad) to raise their young pups. One **older sibling** typically stays behind to watch over the **playful pups** while the rest of the family is out **hunting**. Once the young wolves are old enough – about **two years old** – they might strike out on their own or stick around with their family to help raise new youngsters.

## SWIMMING CHAMPS

One small island usually isn't big enough for coastal wolves to find and eat the **3kg of food** they need each day. So the canines **doggy-paddle** from island to island in search of more food. And these wolves really are **super swimmers**. "Scientists have spotted them on nearly every one of the **thousand islands** and **rocky outcrops** in the area," says **conservationist Ian McAllister**. "They've been known to **swim** up to **12km** in between each strip of land."





Some coastal wolves get 90% of their diet from the sea.

5

## SEAFOOD, PLEASE!

Unlike their **forest-dwelling** relatives, who devour **moose**, **elk** or **caribou**, coastal wolves comb the beach, using their powerful **sense of smell** to find whatever **snacks** the ocean has served up. They might dig in the sand for **crabs** and **clams**, feast on **fish eggs** stuck to **kelp**, or sneak up on sunbathing **seals** or **otters**. "They'll even scoff **barnacles** off logs as if they're corn on the cob!" says Chris.

Others just chow down on **salmon**. "They wait in the **shallows** where the salmon's backsides are poking out, then snap up the tastiest-looking fish they can find," Chris explains. "A coastal wolf might gobble up **ten salmon** in just **one morning**!"

3, 2, 1...  
salmon!

Catch that  
snack!

Looks  
like salmon  
for dinner  
again!

Scientists think coastal wolves howl in a different 'dialect' from other wolves!

## HOWL-OWEEN

Ahhhh-woooooh! Around **Halloween**, that sound might send shivers down your spine. But why?

Wolves are the **top predators** in many habitats. For thousands of years people competed with the **canines** for food and protected their **livestock** from them. In almost all cultures where **ancient people** lived near **wolves**, these carnivores inspired frightening **folktales** about humans turning into scary **bloodthirsty beasts** – **werewolves**!

In parts of the world with **different** animals at the top of the **food chain**, people created stories about creatures such as **were-tigers**, **were-jaguars**, and **were-crocodiles**. If you ask us, they all sound like they'd make **howlingly** good **Halloween costumes**!

4

## SPLASHY SURPRISE

Grey wolves that live in **open habitats** often hunt by **chasing** big, hoofed animals across a wide plain. But that style of **hunting** doesn't work on a coast that's full of **thick rainforest** or **tiny islands** too small to run across. Instead, coastal wolves often **sneak up** on prey – then pounce! **Seals** might be able to get away from **killer whales** by clambering onto rocks or beaches. But on land they're not **safe** from ambushing wolves.

Main image and all fishing images © Paul Nicklen / National Geographic Image Collection; Wolves playing and submerged wolf © Ian McAllister / Pacific Wild; Howl-oween © Jeff Wodniack / Getty Images.



OTHER  
ANIMALS  
IN

# Odd Places

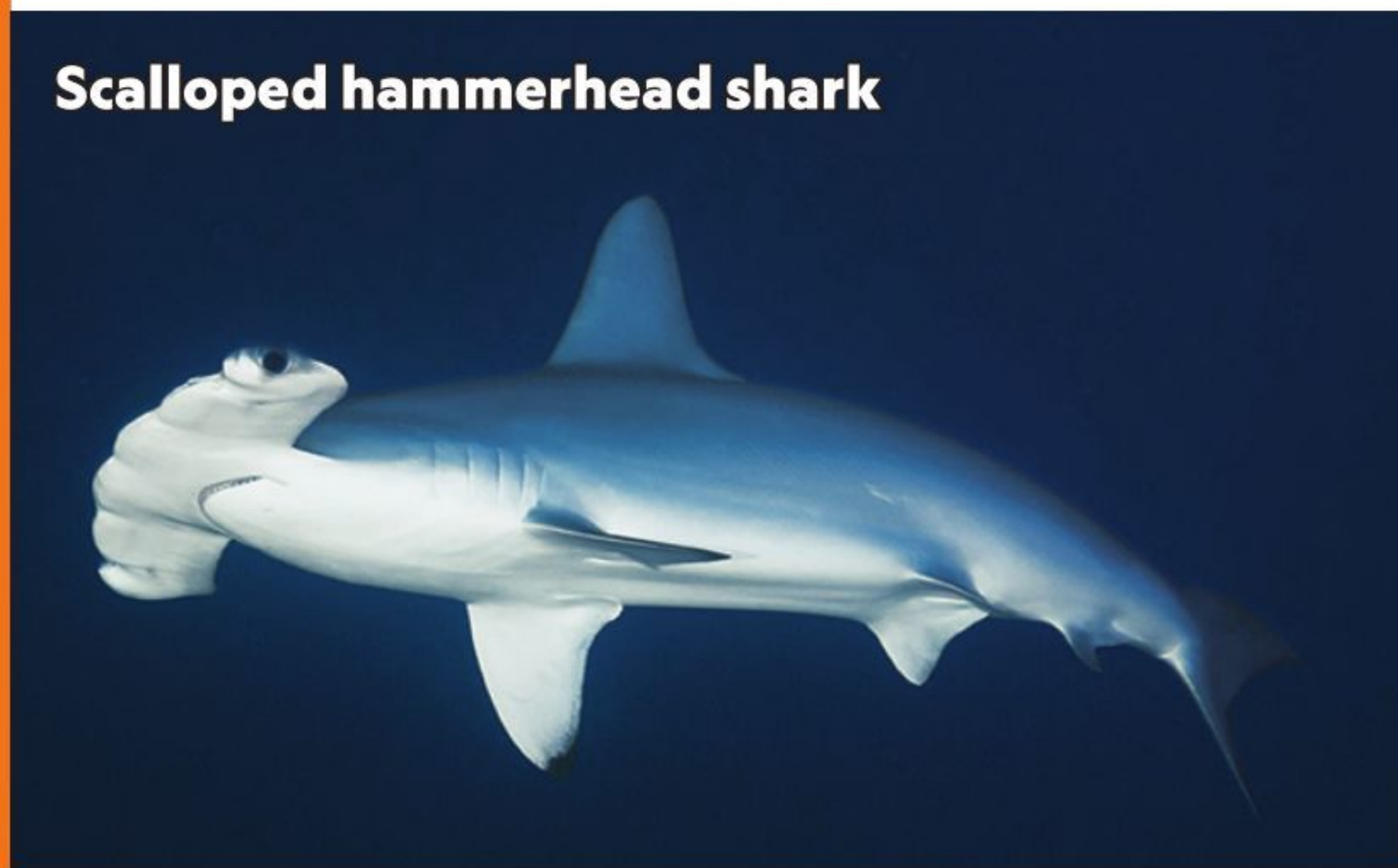
Think a wolf by the ocean is strange? Meet a few other animals that might *seem* out of place but are right where they're supposed to be...

## TREE GOATS

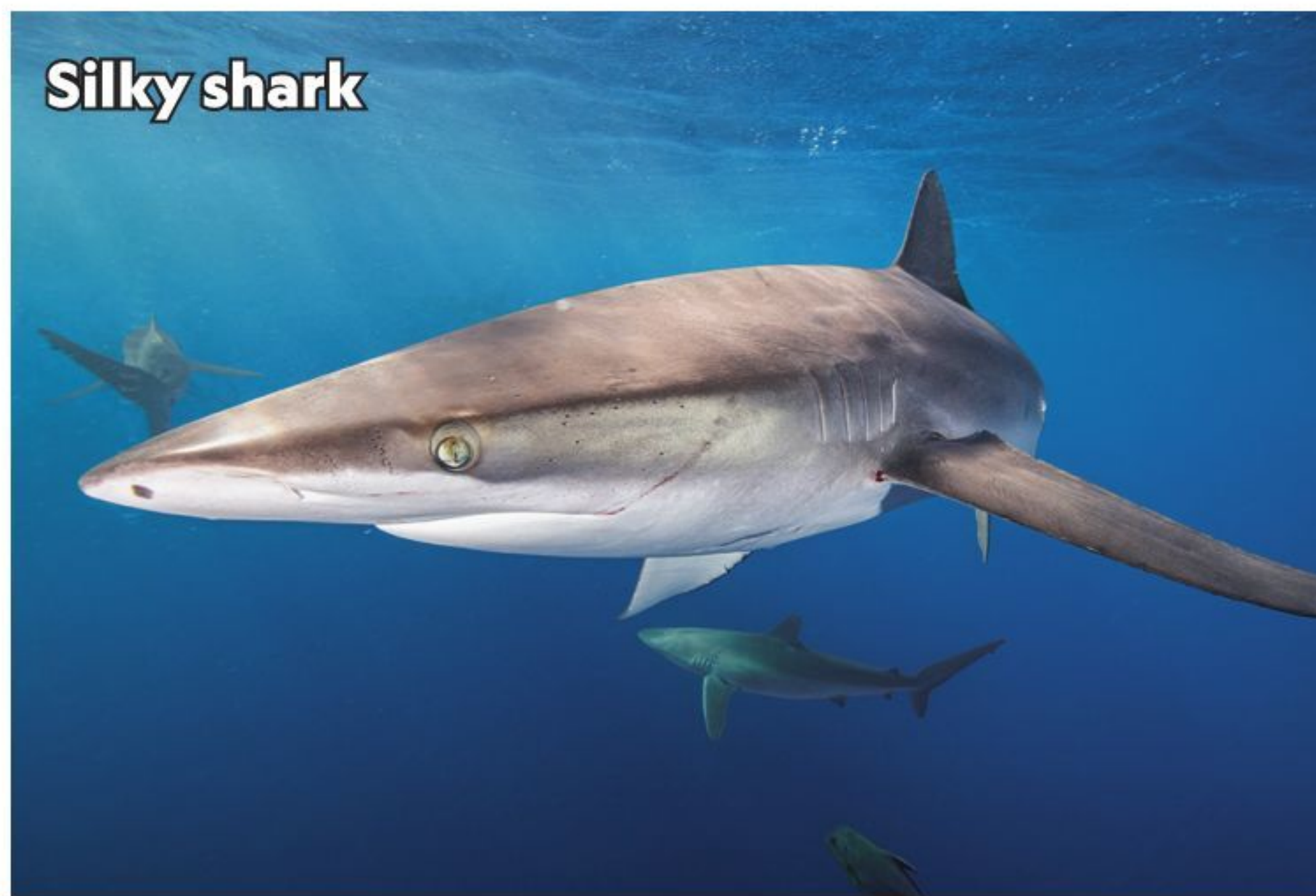
These **goats** will do a lot for a **snack** – including climbing to the top of a **9-m-tall tree!** Every summer the **argan trees** in **southwest Morocco** produce bitter-tasting **fruit** that the local goats can't resist. And these peckish goats are doing us humans a **favour** – when they **spit** (or sometimes **poop!**) out the **indigestible nut** inside the argan fruit, the nuts can be **collected** to make an **oil** that's used in **hair products** and **food!**



Scalloped hammerhead shark



Silky shark



Pacific sleeper shark



**VOLCANO SHARKS** When scientists dropped a **deep-sea camera** into the mouth of an active **underwater volcano** in the **South Pacific Ocean** near the **Solomon Islands**, they were surprised to discover **three species of sharks** swimming through water that's **too hot** and **acidic** for human divers – **scalloped hammerheads**, **silky sharks** and a super-rare **Pacific sleeper shark**. The big question now is whether the sharks will be able to sense when the volcano will **erupt** again!



## CITY WHALES

No, they're not visiting the **Empire State Building** – they're on the lookout for **food**! **Humpback whales** are swimming back in the waters off the coast of **New York City** in the **USA**. Why? Years of cleanup efforts in the **Hudson River** – a tidal estuary where fresh and salt water meet – have brought back **algae**, **zooplankton** and **fish**. And the **humpbacks**, which are the ultimate foodie tourists, weren't far behind! So far this year there have been an incredible **377 sightings**. Wow!

Empire State Building,  
New York, USA



## FOREST PENGUINS

**Fiordland crested penguins** prefer the warm waters and misty rainforest of **southwest New Zealand** to the **icy Antarctic**! With smaller bodies than many **cold-weather penguins** (such as **emperors**), the flightless birds live in balmy **21°C temperatures**. And their **eggs** stay toasty in this **warmer habitat**, too, tucked away in **caves**, **bushes** and **tree stumps** where males sit on the nests.

## OCEAN SLOTHS

**Pygmy three-toed sloths** might be **slow climbers**, but when they get into the **water**, they're powerful paddlers! These **special sloths**, which only live in the **mangroves** of a tiny island off the coast of **Panama** in **Central America**, plop into the sea when they want to move to a new tree. Their tummies are often filled with gas due to their **leafy diet**, so they stay afloat easily – and they can move **three times faster** in the water than they can on the **ground**. But since we're talking about **sloths**, that's not really saying much!





# QUIZ

## How squeamish are you?

The word 'squeamish' describes a person who is super-sensitive to anything disgusting, such as seeing dog poo on the street, getting a whiff of rotten food, or stepping on a slug!

Curious about your own ability to withstand grossness? Take this just-for-fun quiz to find out where you score on the squeamishness scale...

**START HERE**

**YOU HAVE A LARGE SCAB. WHAT DO YOU DO WITH IT?**

Cover it with bandages and try not to faint.

Leave it alone and forget about it.

Pick or poke at it, even though you know you shouldn't.

No, of course not. Eww!

**HAVE YOU EVER EATEN A BOGEY?**

Guinea pig.

Labrador retriever.

Erm... maybe?

**WHICH OF THESE WOULD YOU PREFER AS A PET?**

Boa constrictor.

**STOMACH OF STEEL**

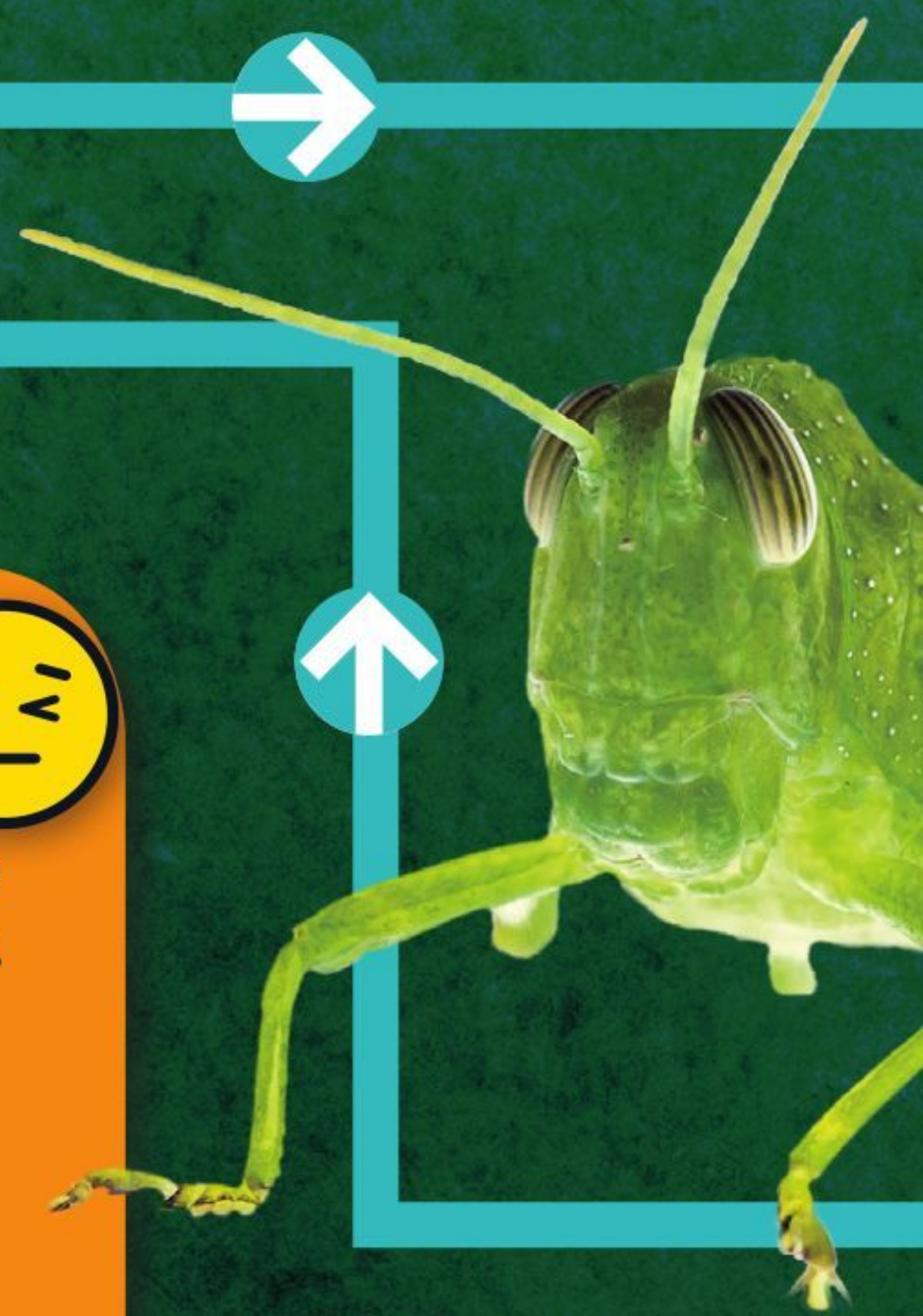


Nothing grosses you out. NOTHING. In fact, we suspect you actually like all this gross stuff. And that's OK, because someone in this world has to perform gory operations and catch hairy spiders without batting an eye. But don't forget that things like puke and snot can be health hazards, so make sure you wash your hands!

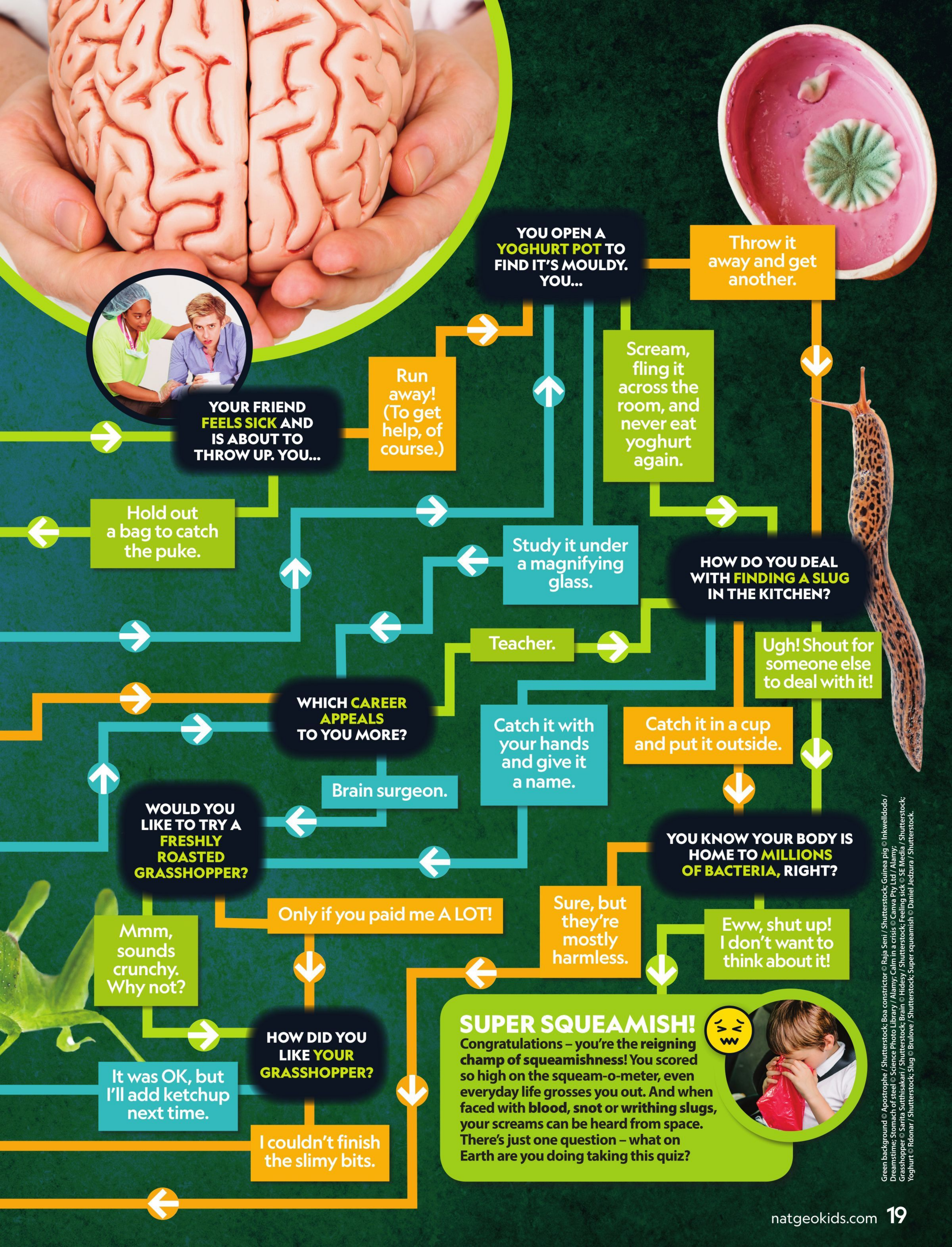
**CALM IN A (GROSS) CRISIS**



You're a handy person to have around when things get icky. When a gross or gruesome challenge rears its ugly head, you do what has to be done, even if you're gagging inside. Thank goodness someone around here is so sensible! Still, you're only human. Even you can't cope with some disgusting scenarios.







Green background © Apostrophe / Shutterstock; Boa constrictor © Raja Seni / Shutterstock; Guinea pig © Inkwelllodo / Shutterstock; Stomach of steel © Science Photo Library / Alamy; Calm in a crisis © Canva Pty Ltd / Alamy; Grasshopper © Sarita Sutthisakari / Shutterstock; Brain © Hidesy / Shutterstock; Feeling sick © SE Media / Shutterstock; Yoghurt © Rdonar / Shutterstock; Slug © Brulove / Shutterstock; Super squeamish © Daniel Jedzura / Shutterstock.



# Do you love orcas?

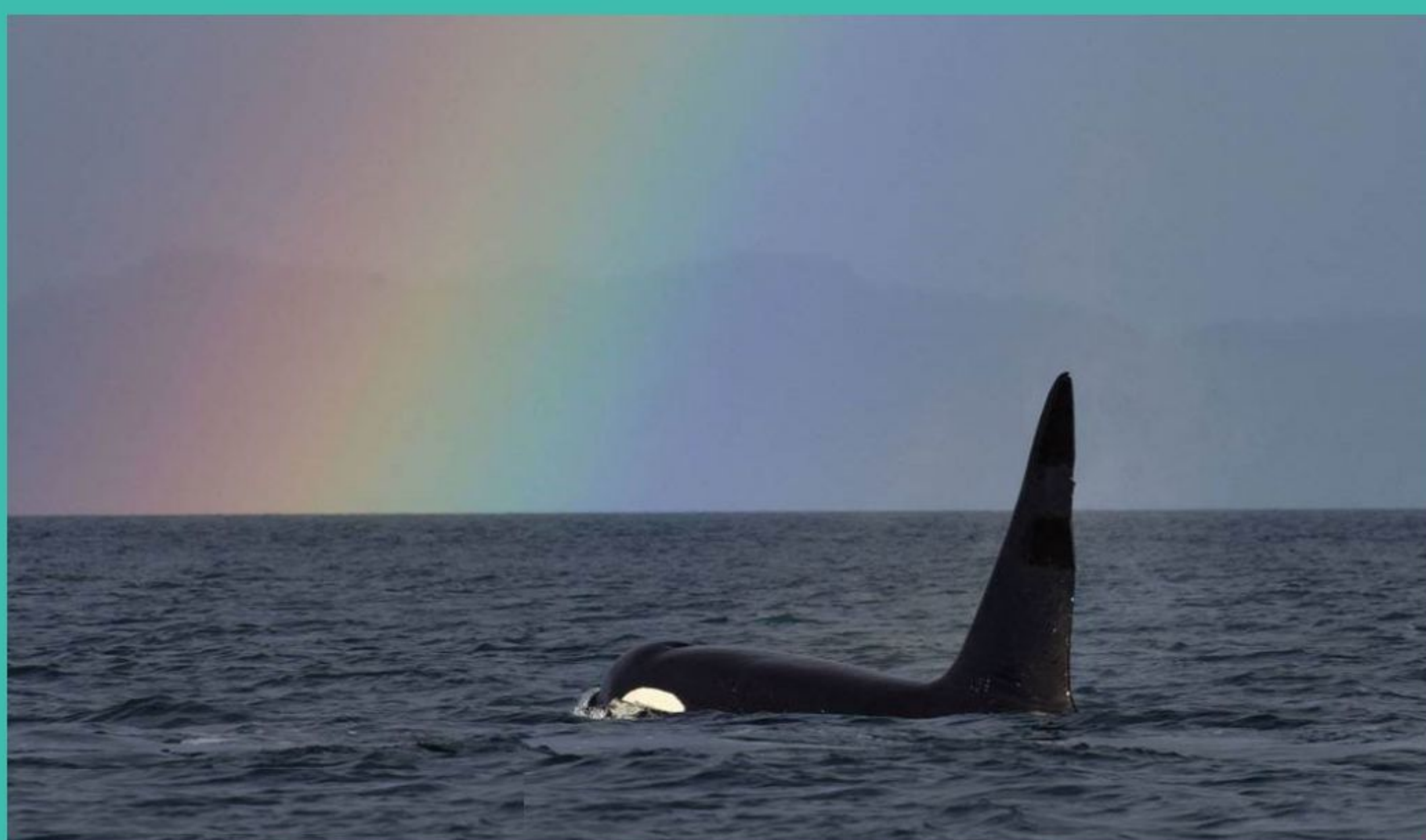
From £4  
a month

**Adopt one of the orcas who live off the west coast of Canada and help protect their friends and family for future generations!**

You'll receive a fantastic welcome pack, including a personalised adoption certificate, cool stickers, a badge, four issues of our awesome kids magazine SPLASH! per year and monthly updates about your adopted orca by email, plus a Christmas and birthday e-card!



## Meet Fife!



Fife is the younger brother of Corky. Tragically he has never met his older sister as SeaWorld have held her in captivity since 1987. He is quite a character, extremely handsome and is easily recognised by his tall straight dorsal fin.

## Meet Bend!



Bend was a surprise from the time she was born. No one had ever seen an orca quite like her. On the front edge of her dorsal fin was a deep cut and it grew lopsided taking on a comical look of the sorting hat from Harry Potter!

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TELEPHONE 01249 449500. PHOTOS © MAIN PICTURE: ROB LOTT, FIFE: JARED POWERS, BEND: MEGAN HOCKINN-BENNETT

WHALE AND  
DOLPHIN  
CONSERVATION





# KING TUT'S TREASURES!

It's almost 100 years since 'Boy King' Tutankhamun's tomb was discovered. Now's your last chance to see its treasures before they're returned to Egypt...

**K**ing Tutankhamun became ruler of **Ancient Egypt** when he was **nine years old**. The **Boy King** died just **ten years later** and he was buried in a **golden coffin** surrounded by **5,000 priceless treasures**, including **animal statues**, **jewellery**, **clothes**, **weapons** and even **toys**.

Tut's tomb was found by British archaeologist **Howard Carter** in **November 1922**, more than **3,300 years** after the **Egyptian Pharaoh's** death. Remarkably, it was almost **untouched**. Now, to celebrate the anniversary of the incredible tomb's discovery, **150 artefacts** from the burial site are on display at the **Saatchi Gallery** in **London**, more than **60** of which have **never** been seen outside of Egypt. Check out three of them here...

Some Egyptologists believe King Tut may have died in a chariot crash. But the cause of his death remains a mystery today!



1

## Wooden Guardian Statue of the King

This life-sized statue of Tutankhamun, with piercing golden eyes, gold clothing and contrasting black skin, was one of two sentries that Howard Carter found guarding the sealed entrance of Tut's burial chamber. Would you have dared mess with it?!

2

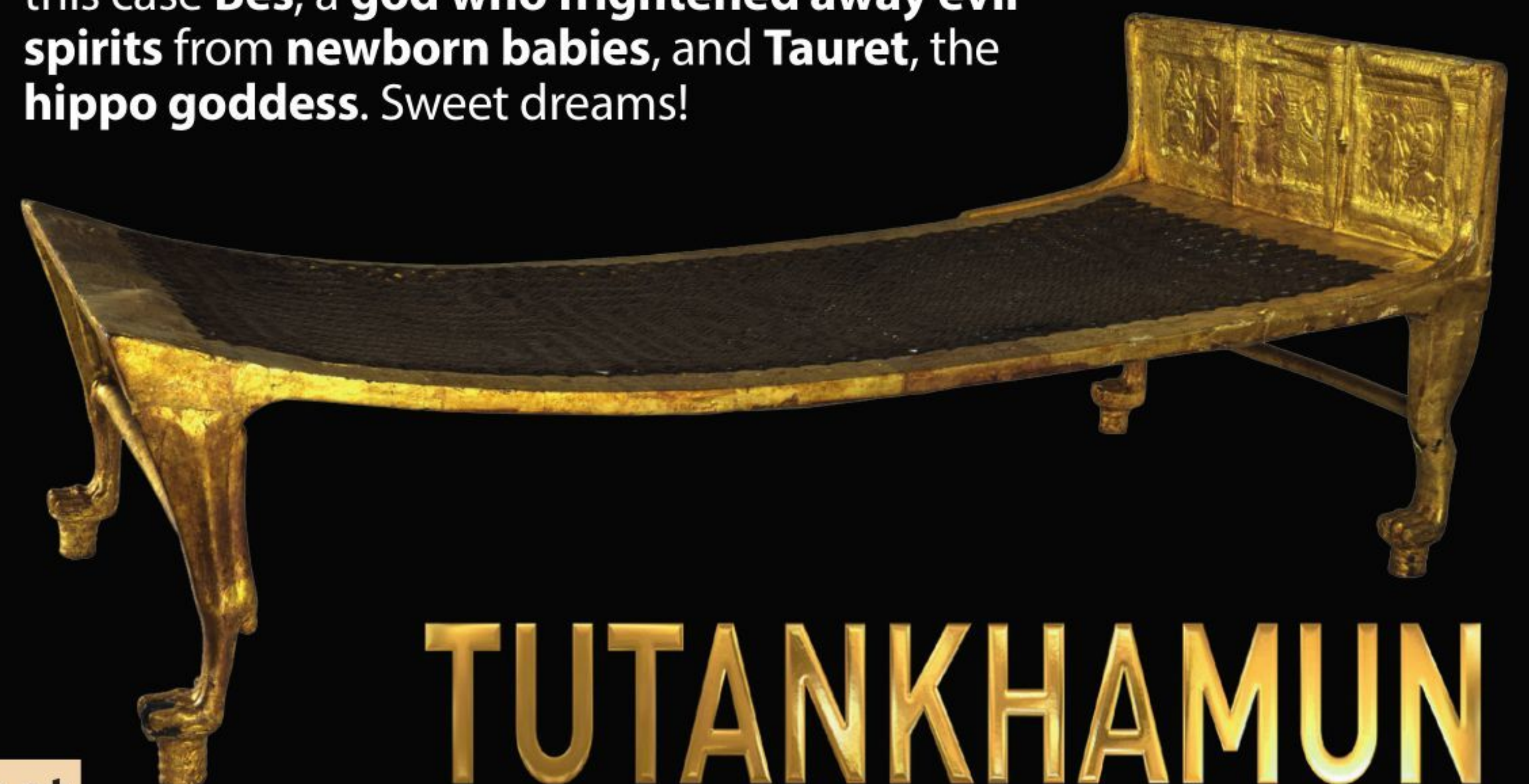
## Miniature Canopic Coffin

The afterlife was incredibly important to the Ancient Egyptians. They believed that by preserving a dead person's body – through the process of mummification – the soul would live on in the afterlife forever. During the mummification process, the internal organs were removed, wrapped in linen bandages and placed in containers called canopic vessels. Usually these were jars, but sometimes the organs were stored in miniature golden coffins. This beautiful coffin (left) contained King Tut's liver. Wow!

3

## Gilded Wooden Bed

Experts think the gold-covered bed (below) was made for King Tut's funeral. The Ancient Egyptians believed that the dead were merely asleep and that they woke up when they were 'reborn' in the afterlife. To ensure the Pharaoh's safe passage into the afterlife and to keep evil forces at bay, divine figures were carved on to the bed – in this case Bes, a god who frightened away evil spirits from newborn babies, and Tauret, the hippo goddess. Sweet dreams!



To find out more about the awesome new exhibition **TUTANKHAMUN: Treasures of the Golden Pharaoh**, and to book tickets, visit [tutankhamun-london.com](http://tutankhamun-london.com)

**TUTANKHAMUN: Treasures of the Golden Pharaoh** is at the **Saatchi Gallery** in London from **2 November to 3 May 2020**

# TUTANKHAMUN

TREASURES OF THE GOLDEN PHARAOH

SAATCHI GALLERY | 2 November 2019 – 3 May 2020



VIKING



# THE SCIENCE OF SPOOKY



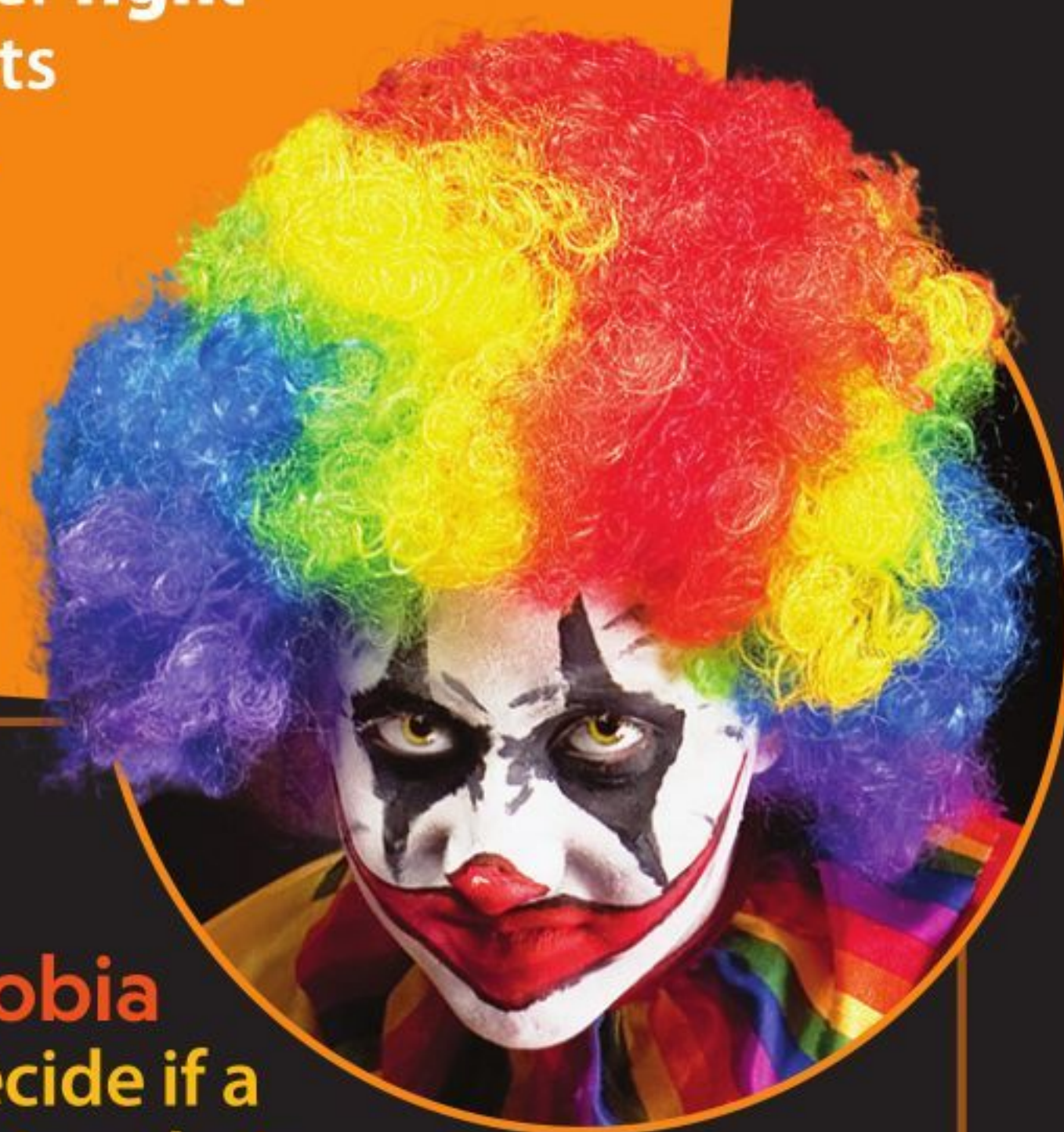
## HOW CREEPY THINGS AFFECT YOUR BRAIN...



What's that **strange noise** in the night? Is it the **wind**? Or something else?

"When you **encounter something scary**, your **brain** releases **chemicals**," says **psychologist Martin Antony**. "These chemicals make our **hearts race**, so we **breathe faster** and **sweat**. Your **nervous system** is preparing your body to either **fight a threat** or **run away from it**." Scientists call this the '**fight-or-flight**' response.

So which so-called spooky things make us feel this way – and why? Discover what puts the **EEK!** in these **five fr-EEK-y phobias...**



### THE FEAR: SPIDERS

**SCIENTIFIC NAME:** Arachnophobia

**SPOOKY SCIENCE:** Some scientists believe that **venomous spiders** were so dangerous to **ancient humans** that a **fear of the species** became part of our **DNA**! Other experts think that it's the arachnids' **angular legs**, **dark colours** and **unpredictable movements** that makes them scary. "A lot of people still have **incorrect ideas** about how dangerous spiders are," says psychologist **Kyle Rexter**. "While some spiders *can* be deadly, **most are not**."

In fact, humans actually **benefit** from the existence of spiders. By **eating disease-carrying** critters such as **mosquitoes** and **cockroaches**, these **arachnids** act as a form of **pest control**. Plus, scientists are currently **studying spider venom** in the hopes that it can one day be used in **medicines** to manage pain or cure illnesses.

### THE FEAR: CLOWNS

**SCIENTIFIC NAME:** Coulrophobia

**SPOOKY SCIENCE:** One way we decide if a person is friend or foe is by evaluating their **facial expressions**. **Clowns** – with their **makeup**, **wigs** and **fake noses** – are **hard to read**, which is part of what makes them scary to some people. "It's hard to tell how a clown is feeling," psychology professor **Frank McAndrew** says. "So we think, 'If clowns can hide their emotions, what *else* might they be hiding?'"

## FIGHT THE FRIGHT

It's natural to avoid things that scare us. But psychologists say that to get over your fears – whether you're afraid of spiders, clowns, the dark,

or, well, anything – you have to **focus on them** instead of avoiding them. Here are some useful tips to help you **manage your fears...**





## THE FEAR: HEIGHTS

**SCIENTIFIC NAME:** Acrophobia

**SPOOKY SCIENCE:** When you're **standing on solid ground**, your **eyes** work with your **inner ears** to help you stay **balanced**. But if you're standing, say, at the **edge of a cliff**, your sense of balance can get out of whack. "Your inner ear is saying you're **surrounded by solid ground**, but your eyes are saying, 'nope!'" explains inner-ear specialist **Dennis Fitzgerald**. Your brain is getting **mixed signals**, which can cause **vertigo**, a **dizziness** that makes heights feel scary.

## THE FEAR: DARKNESS

**SCIENTIFIC NAME:**

**Nyctophobia**

**SPOOKY SCIENCE:** As with many phobias, it's thought humans developed a fear of the **dark** to **avoid danger**. Our **ancestors** had to be **extra cautious** at night to **protect themselves** against things like **animal predators** and **human invaders**. (This was before electric lighting!) "Many people still have that fear of the dark today," Martin Antony says. "It's a **fear of the unknown**."



## THE FEAR: SMALL SPACES

**SCIENTIFIC NAME:**

**Claustrophobia**

**SPOOKY SCIENCE:** Most people think taking the lift is no big deal. For others, though, just the **thought** of getting **trapped** inside a lift can cause them to take the stairs! "Small spaces might make some people worry about **running out of oxygen**, or **never being able to get out** – no matter how unlikely that is," says Martin. Some people are afraid of being trapped in **cars** or **tunnels**, and even getting stuck in **sleeping bags**!

## Fear of what?!

Check out the four unusual phobias below. Can you match the words with the fears?

Answers on page 56

**1 Ailurophobia**

**2 Koumpounophobia**

**3 Anthophobia**

**4 Ombrophobia**



**A Fear of buttons**



**B Fear of flowers**



**C Fear of rain**



**D Fear of cats**

● Expose yourself to things that you're afraid of in a way that you feel safe. For example, if you fear public speaking, try practising in front of a mirror first, then give the speech to a small group of trusted friends.

● If you feel anxious, place one or both of your hands on your stomach and focus on breathing slowly and deeply. Regulating your breathing will help you feel calmer and can lessen your sense of panic.

● Don't be too hard on yourself! Everyone's afraid of something. Just make sure it doesn't stop you from living your life. Talk to an adult if it feels like too much to handle on your own.



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YOU DECIDE WITH THIS MICRO SCALEXTRIC BATMAN & SUPERMAN RACE SET.



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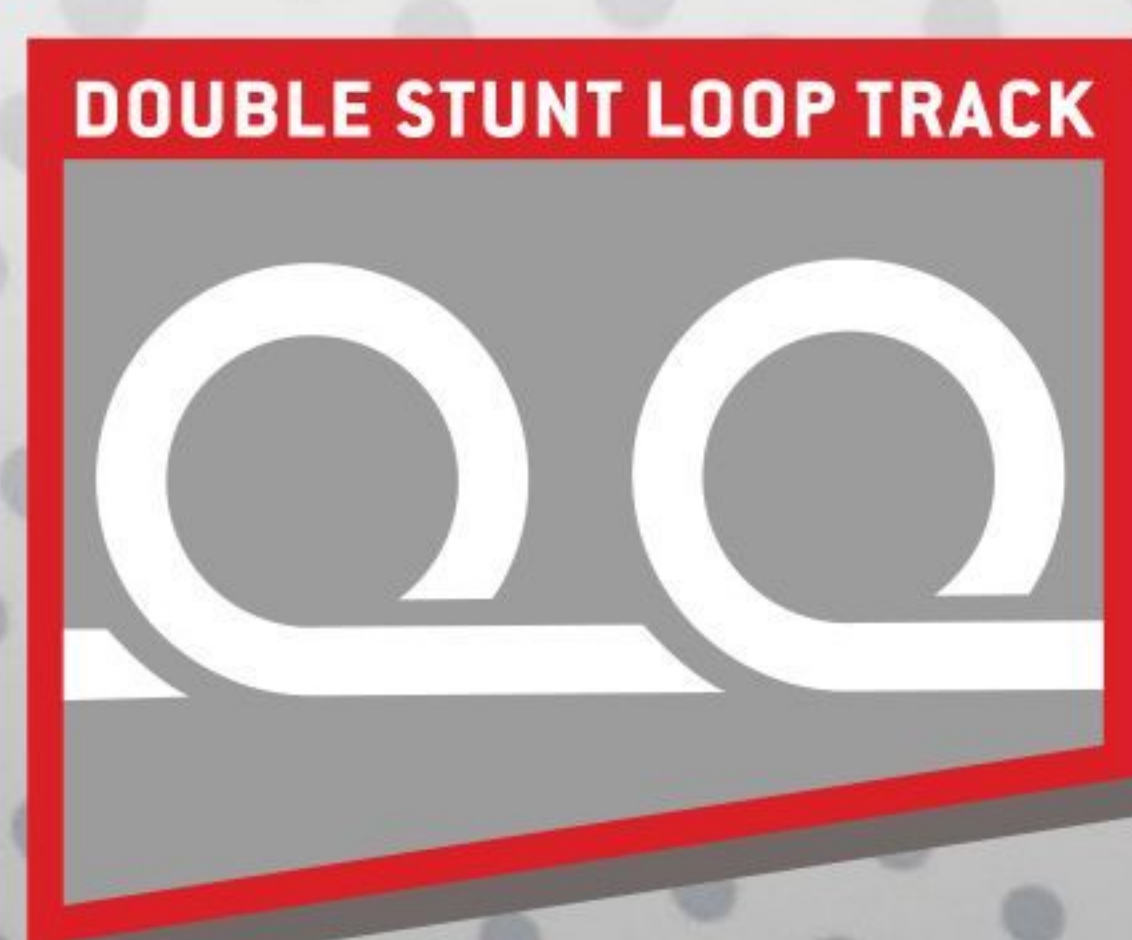
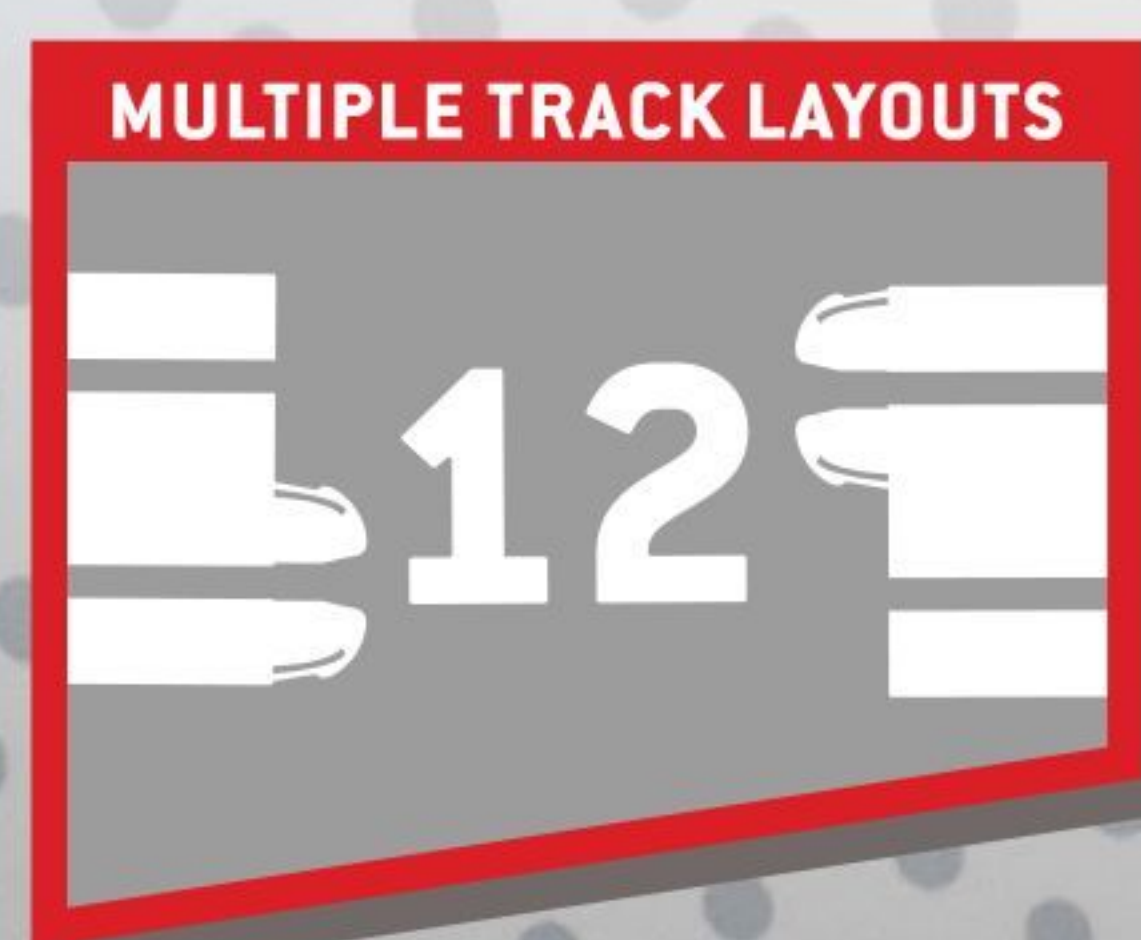
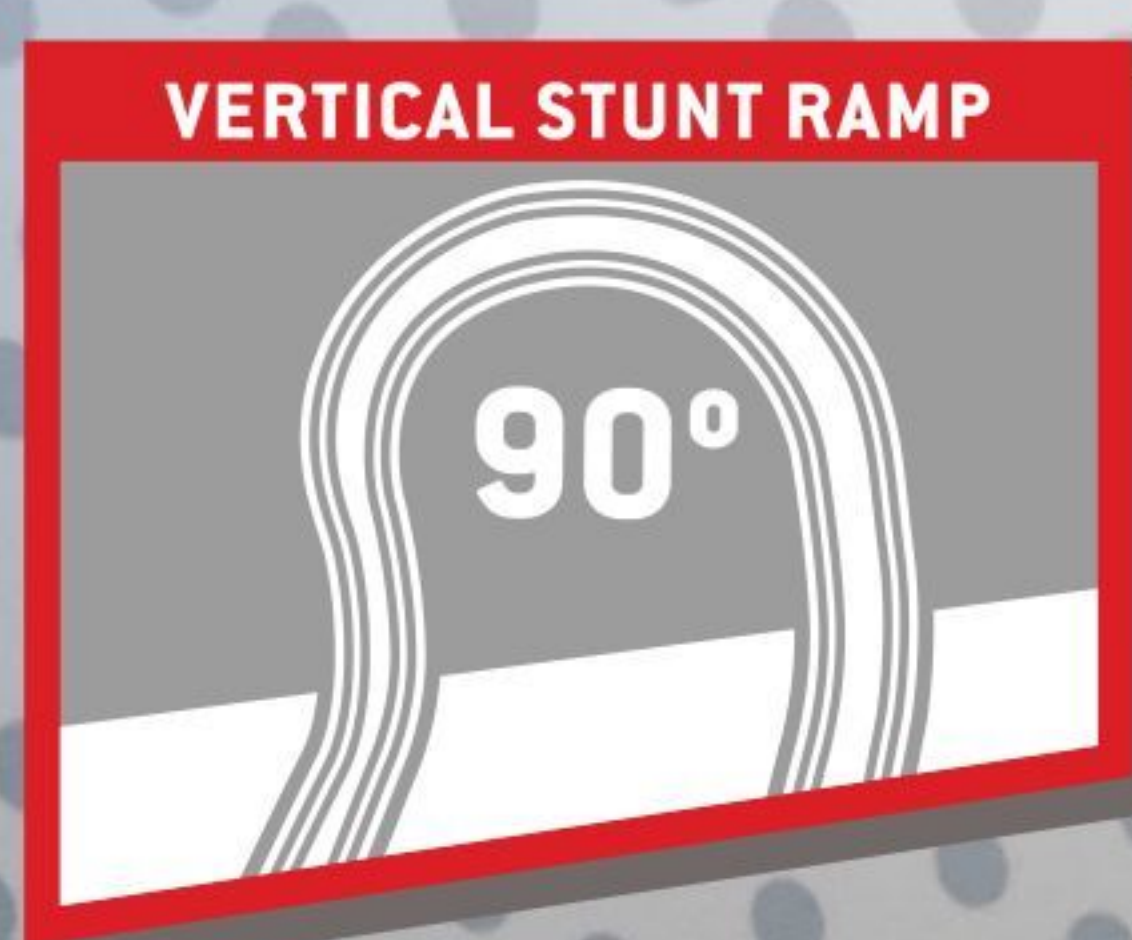


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- WITH INDIVIDUAL CARS AVAILABLE, FANS OF THE FLASH AND WONDER WOMAN CAN JOIN THE RACE TOO.
- COLLECT THEM ALL AND CREATE NEW ADVENTURES FOR THE MEMBERS OF THE JUSTICE LEAGUE.



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**weird  
but  
true!**

Check out these  
outrageous facts...



A speck of  
**blood**  
contains about  
**5 million**  
RED BLOOD  
CELLS.



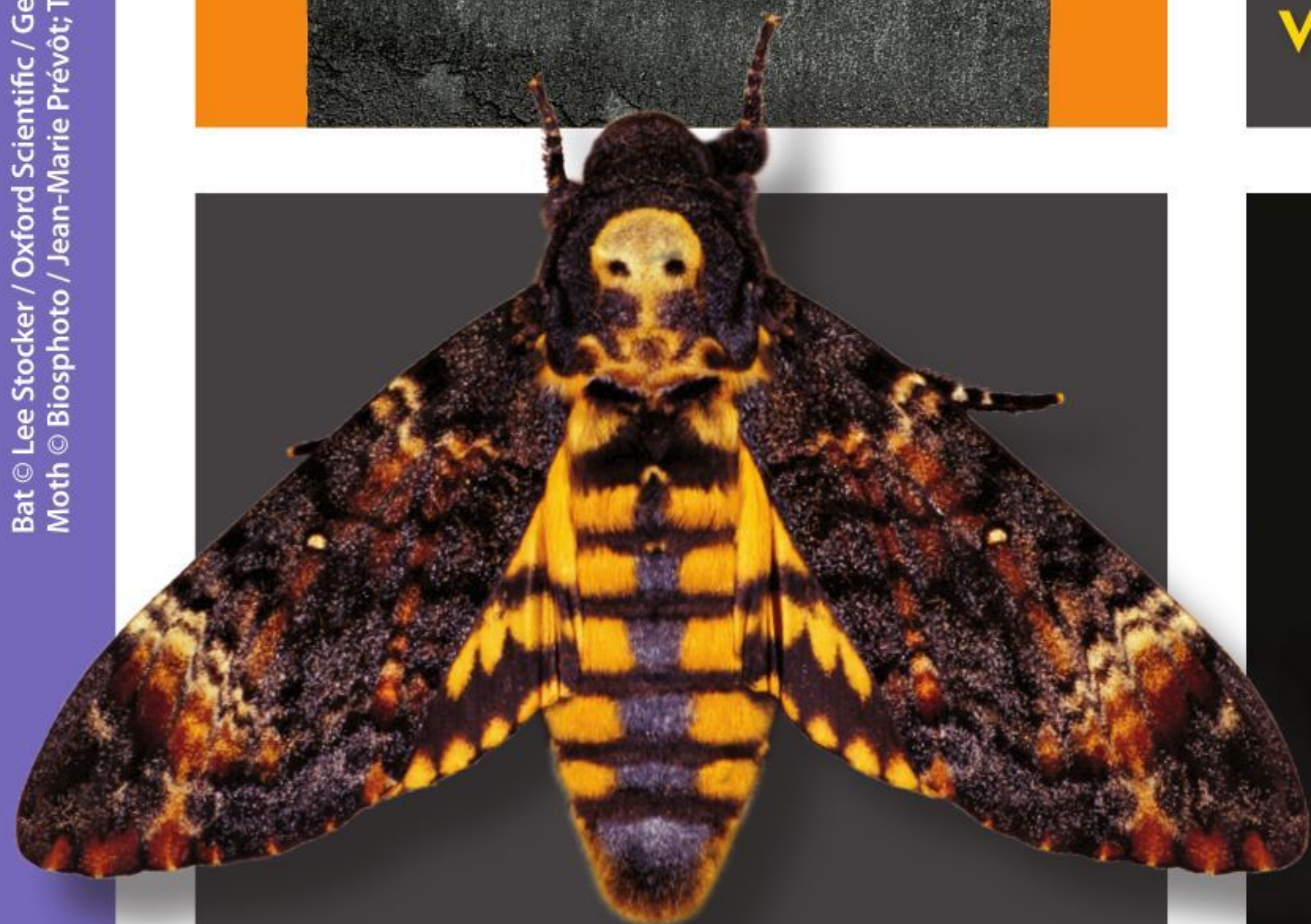
Cryptozoologists  
study legendary creatures  
such as **Bigfoot**.

Portions of  
Albert Einstein's  
**brain** are  
on display in a museum  
in Philadelphia, USA.

A  
town  
in  
Arizona, USA,  
is named  
**Tombstone.**

Some  
bats' hearing  
is strong enough  
to detect the sound  
of a beetle  
walking on a leaf.

Extracts from  
human hair  
are used to make some  
pizza crusts.



The DEATH'S-HEAD  
**hawkmoth** has a  
SKULL-SHAPED PATTERN  
on its body.

Jack 'o  
lanterns  
were originally made  
out of turnips.



A goblin  
shark can thrust  
its jaws out of  
its mouth.





# GEO SQUAD

#5

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STORY: MATHEW SULLIVAN/ART: MAREK JAGUCKI

WE'D BETTER BE **QUICK** -- KWAME'S BRACES ARE STRONGER THAN THAT **RICKETY PLATFORM**.

HOLD ON A SEC... I THINK SOMEONE'S **HOME!**

EXCUSE ME **SIR!** WE NEED YOU TO **VACATE** THE **PREMISES!**

WHAT'RE YOU **HOVERIN'** HUNKS OF **TECH** AND **TINFOIL** TALKIN' 'BOUT?

YOUR HOUSE IS ON THE **VERGE OF COLLAPSE!**

**NONSENSE!** I BUILT THIS HOUSE **MA-SELF**, AND I STUCK IT TO THIS HERE **SKYSCRAPER** WITH MA **BARE HANDS**, USIN' **TOP-O'-THE LINE TAPE!** I AIN'T LEAVIN'!

USE THE **LASER SCANNER** IN YOUR **MECHS** TO **SCAN** THE **STRUCTURE** - IT MIGHT **REVEAL** SOMETHING **USEFUL!**

WELL, HE SEEMS TO HAVE MADE HIS **CRAZY MIND** UP. WHAT DO WE DO?

**2** CHIMNEY: **CHEAP, CHIPPED AND CHARRED**

**1** OCCUPANT: **OBTUSELY OBTUSE**

THE **AIR** AROUND MA **PROPERTY** IS ALSO **MA PROPERTY!** YOU NEED'TA **LEAVE!**

**3** FOUNDATIONS: **FAIRLY FIRM**

**4** SUPPORT STRUCTURES: **SEVERELY SNAPPED**

IF WE CAN SOMEHOW **LIFT** IT, THE FOUNDATIONS LOOK STRONG ENOUGH TO **SUPPORT** THE STRUCTURE. THE QUESTION IS, **WHERE** WOULD WE SET IT **DOWN?**

NOT SURE DOWN **THERE** LOOKS ANY **SAFER** THAN **UP HERE!**

HOW ABOUT **THERE?** I RECKON THE **PLAYGROUND** IS WIDE ENOUGH!

I'LL **SCAN** THE **PLAYGROUND** USING ONE OF YOUR **GROUND PENETRATING RADAR** UNITS! GIVE ME A **MOMENT...**

**BOWK!**

I DON'T THINK WE HAVE A **MOMENT**, GG! THIS THING'S ABOUT TO **GO!**

**CRACK!**

**WRENCH!**

SOLID AS A **SCREWED-DOWN ROCK!** I STILL AIN'T LEAVIN'!

**ARGH!** FALLING HOUSE! EVERYONE - **SAVE YOURSELVES!**

**WAIT!** I MEAN, EVERYONE - **SAVE ME!**

OK... **MAYBE** MA HOUSE DOES NEED A **LITTLE WORK** AFTER ALL.

**WOAH** - IT'S **STOPPED** FALLING! WAIT... HOW DID YOU DO THAT? IS THAT A **FLYING HOUSE!?** I WANT ONE!

**TO BE CONTINUED NEXT MONTH...**

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# HORSES









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**KIDS**

**CHIMPANZEE**











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KIDS

KOALA



# 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.



# Join the Mars Mission!

Zoom off on an interplanetary adventure with the new LEGO® City Space range!

Earth's tides are caused by the pull of Moon's gravity on the Earth's oceans.

Check out your **MARS MISSION MAP** Free inside this issue!

The **modular, multi-stage rocket** is inspired by real-life NASA space vehicles and can be **customised** in different ways!

Connect a **smartphone** to the LEGO® City Explorers app and place it in the **launch control** for interactive play – including a **countdown**!

Open the **tower arms** to launch the rocket!

Follow the **#City** group for more space adventures in the LEGO® Life App!

Aim the **robot's scanner** over the **special tile** to see a **secret symbol**!





# Mega Mars Quiz

Answers  
on page 56



# CITY

**1**

What causes Mars to be red?

- a) 'Rust' in the soil  
b) The reflection of the Sun  
c) Its surface is on fire

**2**

TRUE OR FALSE?

Mars is named after the Roman **god of war**.

**3**

What's the name of a person who studies life in space?

- a) Alienologist b) Astrobiologist  
c) Space Investigator

**4**

TRUE OR FALSE?

There are **aliens** living on Mars.

**5**

How many moons does Mars have?

- a) 1 b) 2 c) 10

**6**

TRUE OR FALSE?

Mars is home to the tallest volcano in the solar system.

**7**

Approximately how long will it take to get to Mars?

- a) 8 days b) 8 months  
c) 8 years

**8**

TRUE OR FALSE?

Mars is the **biggest** planet in our solar system.

**9**

How many other planets are closer to the Sun than Mars?

- a) 1 b) 2 c) 3

Answers  
on page 56

## Super Space Crossword

4

5

6

8

9

10

11

12

The average temperature on Mars is **-63°C**. Brrr!

Only 12 people have ever **walked** on the surface of the Moon!

### ACROSS

- 1** Number of planets orbiting the Sun (5)  
**4** The red planet (4)  
**8** First man to walk on the Moon (4, 9)  
**11** Giant gas planet with at least 50 moons (7)  
**12** The smallest planet that's also closest to the Sun (7)

### DOWN

- 2** Famous powerful telescope in low Earth orbit (6)  
**3** Vast distances in space are measured in this (5, 5)  
**5** Planet with rings (6)  
**6** You can view stars and planets through this (9)  
**7** \_\_\_\_\_ SYSTEM. The Sun and everything that orbits around it (5)  
**9** Curiosity \_\_\_\_\_. The name of the NASA robot which is on Mars searching for evidence of life (5)  
**10** A collection of stars and planets (6)

Check out [lego.com/campaigns/kids/city/space/](http://lego.com/campaigns/kids/city/space/)

Turn the page to win a stargazing adventure!



# WIN! STARGAZI AND LEGO®

Enter our out-of-this-world LEGO comp and you could win a fantastic family holiday in Lapland with Activities Abroad, plus LEGO City Space sets!

## Your Challenge

For your chance to win an adventure in Lapland, we want you to **design** an awesome **space vehicle** for the long journey to **Mars**! You could be on board for up to **eight months**, so think about all the things you'll need! The ship should have **life-support systems** (you'll require **food, oxygen and water**), enough space to **work, rest and sleep**, plus plenty of **entertainment**. What other **equipment** or **robots** might be useful?



## Star Prize!

If YOUR space transport design is chosen as our **winner**, you'll zoom off to **Harriniva, Lapland**, with Family Travel Experts **Activities Abroad** for **four nights**. There you'll see **spectacular starry views** of the night sky – you may even catch a glimpse of the **Northern Lights** while **glamping** in your **Aurora Dome**. Plus, you'll hang out with **reindeer and huskies**, and will take a thrilling **snowmobile ride**! You'll also bag **all seven sets** in the **LEGO City Space** range. Awesome!

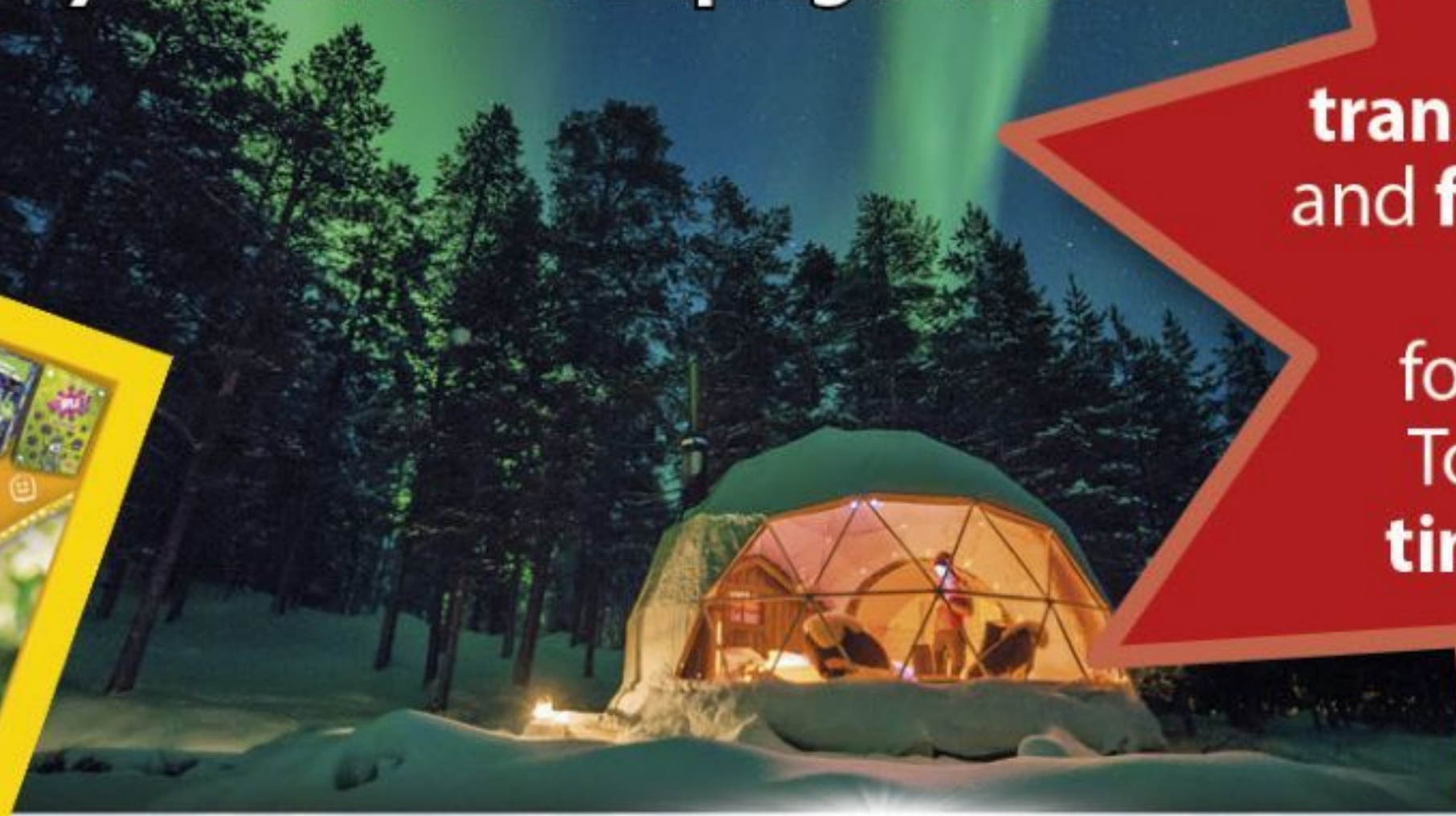


Twenty runners-up will scoop a LEGO City Deep Space Rocket and Launch Control set plus a six-month subscription to Nat Geo Kids magazine!



YOU could bag the ENTIRE LEGO City Space range. Cool!

Check out the stunning night skies from your Aurora Glamping Dome!



First prize includes **flights, transfers, guided activities** and **four nights' half-board accommodation** for up to **four people**. To find out more, visit [tinyurl.com/harriniva](http://tinyurl.com/harriniva)

Which constellations will you and your family see?



Check out [lego.com/campaigns/kids/city/space/](http://lego.com/campaigns/kids/city/space/)



# WINNING TRIP CITY PRIZES



# CITY

## How to Enter!

Either **build** your space vehicle out of **LEGO bricks** and **take a picture of it**, or **draw** your creation. Then **upload** your entry at [natgeokids.com/uk/legocityspace/](https://natgeokids.com/uk/legocityspace/) (you'll need to **register** first!\*) or **post pictures** to us here at NG KiDS along with the coupon on page 55. Make sure you write your **name, age and email address** on your entry, plus a **short description** of your vehicle. You can **label** it too if you like. Good luck!

Enter  
by 14  
November!

\* Children who register will need to have their account approved by a parent or guardian before they can enter online.



### ALL ABOUT ACTIVITIES ABROAD

For over 15 years, **Activities Abroad** has been providing **award-winning** holidays to help you explore the world with the whole family, cultivating **moments that matter** and ensuring the **smooth running** of your break from beginning to end. Their handcrafted tours will take you on bucket-list **snow adventures** to Lapland and exciting multi-activity summer trips to Europe and beyond!

● Find out more at [activitiesabroad.com](https://activitiesabroad.com)



## ACTIVITIES ABROAD

FAMILY MADE FAMILY HOLIDAYS

**Ts & Cs:** The competition is open to children under the age of 12 who are resident in the UK and Ireland. Only one entry per person is allowed. We will not be able to return entries. The deadline is 23:59 on 14 November 2019. First prize includes flights, transfers, listed activities and 4 nights' half-board accommodation for up to four people to Harriniva, Finland, one of whom must be an adult over the age of 18, with a maximum of two adults in total and two children, who must be age 5-12 years at the time of travel. Travel must be taken between 1 March and 30 April 2020. For full Ts&Cs head to [natgeokids.com/uk/legocityspace/](https://natgeokids.com/uk/legocityspace/)



YOUR SHORTCUT TO THE ULTIMATE

# Sparkling Lapland Adventure!



Watch young eyes gleam with excitement as they meet with Father Christmas in his home; gaze at the dark Arctic sky as you tick the ethereal Northern Lights off your bucket list; journey through a frozen forest on a thrilling husky sled and meet Rudolf's friends and family - just a few of the sparkling adventures awaiting you on a holiday with Activities Abroad!

Discover how we do Lapland differently, visit [activitiesabroad.com](https://www.activitiesabroad.com)



FAMILY MADE FAMILY HOLIDAYS



ABTA No Y6261 ATOL Protected 6865 AITO Assured 5180



**Bet You  
Didn't  
Know!**

# 6 stellar facts about stars

**1** Our galaxy, known as the **Milky Way**, contains an estimated **100 to 400 billion** stars.

**2** The **fastest spinning star** ever discovered, **VFTS 102**, rotates at **2 million kmph**.

**3** A **'zombie star'** is a surviving fragment of a star that **exploded**.

**4** Scientists have created pieces of **white dwarf stars** in a lab.

**5** **Harry Potter** characters **Sirius Black** and **Bellatrix Lestrange** were named after stars.

**6** The star **VY Canis Majoris** is so large a plane would take more than a **1,000 years** to orbit it.



# THE BIG INTERVIEW

NG KiDS chats to astrobiologist and aspiring astronaut Abby Harrison about her dream of setting foot on the surface of Mars...



**Name:** Abigail Harrison, aka Astronaut Abby  
**Age:** 22  
**From:** Minnesota, USA  
**Job:** Astrobiologist and founder of The Mars Generation, a charity which aims to get kids and adults excited about human space exploration and STEM subjects (Science, Technology, Engineering and Maths).  
**Aim:** To be the first person to walk on the surface of Mars.

## GET INTO STARGAZING!

Follow these top tips to explore our amazing night sky...

- 1** All you really need are your **eyes**! But if you'd like to get a little closer to the stars, borrow or buy a cheap pair of **binoculars**.
- 2** Head **online** to **download** and **print off** a **star map**. Or make your own (try [www.universe.wales/planisphere/](http://www.universe.wales/planisphere/)). There are lots of good videos online that'll teach you how to use them.
- 3** Alternatively, **download an app** for your smartphone, such as **Star Walk 2**, to help you view and identify stars!
- 4** Head outside! But try to find a nice, **open, dark spot** without **light pollution**, such as street lights. Good luck!

## WANT TO BE AN ASTRONAUT?

**STUDY:** STEM subjects such as **science**, **technology** and **maths**, plus **languages** – but make sure you study the subjects you **love** the most.

**WATCH:** Ask Abby on YouTube ([tinyurl.com/astronautabby](http://tinyurl.com/astronautabby)), National Geographic's *Journey to the Edge of the Universe*, the BBC's documentary series *Space*, and the movie *Apollo 11*.

**READ:** NG KiDS' *Everything Space* and the Science Museum's *Planetarium*

Follow your heart in your studies and do what you love!

Since its creation, Abby's Mars Generation charity has funded 40 kids to attend NASA's Space Camp in the USA!

Abby read NG KiDS when she was a kid. She clearly has great taste!





Hi Abby! You founded *The Mars Generation*, a worldwide movement to get kids excited about space exploration – you now have almost a million followers on social media! How did that all come about?

When I was **13**, I set up a **Twitter** account called **AstronautAbby** to get a **quote** from **NASA** for a **school project**. I found a community of people online who were just as **excited** about **space** as me. I was then asked by **NASA** to write an article for their **education blog**, I began attending major space events, and four years later I founded **The Mars Generation**. I want to inspire kids to **dream big**.

So how old were you when you first became interested in space?

I was **four** or **five** when I started **stargazing**. I spent a lot of time in my backyard looking up at the night sky and I'd ask my mum or teachers questions, like, "**How big is the universe?**" or "**Why does that exist?**"

They would always answer, "**We don't know the answer to that yet...**" And that made me want to **find the answers** myself!

Why is your dream to go to Mars?

The winter skies in **Minnesota** where I grew up were **really clear** and Mars was always **visible**. Every time I went out I'd think about what it would be like to **walk on that surface**. Then, when I got older, I found out that there's **seasonally flowing water** on the planet, and it has **potential for life** or has hosted lifeforms in the past.

Wow! You're an astrobiologist.

What does that mean?

**Astrobiology** is the **study of life** in **space**. One part of it is the **search for alien lifeforms** and it also includes what happens to life that **we purposefully put into space** – everything from **bacteria** to **humans**. It's fascinating!

You're on a quest to be an astronaut and kids can follow your preparation online.

What sort of things have you done?

**"Mars is the stepping stone to the rest of our solar system."**

School kids love listening to Abby talk about space!



Astronaut training under the waves!



Among other things, I've learned to **fly an aeroplane** as it's a good **stepping stone** to becoming an astronaut – it's so much fun. I've learned **Russian**, been **skydiving**, and have been **scuba diving** since I was **14**.

What's scuba diving got to do with space?!

It's how astronauts train for **microgravity**, so it'll be easier for me to jump into **astronaut training**! Oceans are the closest things we have to **space** on Earth – we've still got so much more to learn about our oceans.

When are you going to Mars?

Well, I'm still about **5–10 years** away from **applying** to be an **astronaut**, so I'm busy getting the **skills, experiences** and **qualifications** that will be required to be an astronaut. They haven't set a date for

Mars missions yet, but I'm hoping they'll be in my lifetime.

How long will it take astronauts to get to the red planet?

About **eight months**. The whole mission would last about **three years** because you have to wait for Earth and Mars to be the **right orbit** to each other so you have the **shortest distance to travel**. That's with current technology, but who knows what it'll be like in **10–15 years** time. We might have figured out how to travel faster by then.

**"Mars is an incredibly exciting place to research right now. We need an astrobiologist on the surface to check things out!"**

Are you a teeny bit scared about visiting the planet?

Absolutely! Space travel is **dangerous**, especially when you're doing something that hasn't been done before – like **sending people to Mars**!

What's the 'closest' you've been to space?

Hmm... When I was **13**, my after-school club launched boxes into the **exosphere**, the **last layer of our atmosphere** between Earth and space. We **created our own experiments**, built the boxes, attached them to **weather balloons** and **launched** them. We put **cameras** inside, and when we got the pictures back they showed the **curvature of the Earth**. It was incredible!

Wow! Wish our science classes had been that exciting! In 2013 you worked with Italian astronaut Luca Parmitano. Tell us about that!

While he was onboard the **International Space Station (ISS)**, I was his '**Earth Liaison**', helping share his experiences with people on Earth. People would **send me questions** for him and I also visited **schools** to tell **kids** about his space mission! It all happened because **I met him randomly** at the **airport** on my way home from watching a **Space Shuttle launch** in Florida with my mum when I was **13**! I introduced myself and we stayed in touch!

Are there many female astronauts?

Out of the **550** or so people that have become astronauts, only about **50** have been women. We need **more girls** in **space, engineering, maths, physics** and **aviation**! **Britain's first person in space was a woman, Helen Sharman...**

Yes! She worked for the **chocolate maker Mars** before becoming an astronaut, so her story is a great example of how you don't have to be pigeon-holed into any one field of research or interest to become an astronaut. I'd love to have a **chocolatier** with me on the **long journey to Mars**! **Haha, yes! Great chatting to you, Abby. Good luck with your travels!**

● To read more about Abby and The Mars Generation, visit **astronautabby.com** and **themarsgeneration.org**



Abby's already conquered the air – so next stop Mars?!



Astronaut Luca Parmitano worked with Abby when he was on board the International Space Station!



# MEET EARTH'S NEIGHBOURS!

Our solar system is made up of eight planets, all orbiting the Sun at different distances and speeds. Let's learn more...

## SUN

Also known as **Sol**, the **Sun**, our **central star**, is at the **centre** of our **solar system**. The Sun is a massively **hot**, massively **dense ball of gases**. By far the **largest** and **hottest** object in our solar system, it provides **light** and **heat energy**, plus various forms of **radiation**, to all of the planets.

## MERCURY

**Mercury** is the **smallest** planet and **closest** to the Sun. You might think it's unbelievably hot all the time, but Mercury has a **thin atmosphere** that doesn't help **redistribute** the Sun's heat. This causes wild **temperature fluctuations**. The side of Mercury that **faces** the Sun is around **430°C**, but the side facing **away** is **-163°C**. Crazy!

## VENUS

As the **second rock from the Sun**, **Venus** is Earth's **closest neighbour**. It's similar to Earth in **size** and **mass**, but because of its **thick atmosphere**, it's also the **hottest planet** in our solar system. Temperatures on Venus's rocky surface never go below **462°C**. Blistering!

## EARTH

Our home **Earth** is **exactly the right distance** from the Sun – **150 million km**. At that distance, the **temperature** is just right, allowing **water** to remain in its **liquid form**. Any closer, and it would **evaporate**. Any further away, and it would **freeze solid**. In fact, **71%** of Earth's surface is **covered** by water.



**GALACTIC FACT** MOST OF THE PLANETS ARE NAMED AFTER CHARACTERS FROM **GREEK OR ROMAN MYTHOLOGY**.



## MARS

Mars is known as the 'red planet' and is one of **four terrestrial**, or **rocky**, planets in the solar system. The red appearance of Mars is caused by **iron oxide**, or **rust**, in the **soil**.

## SATURN

A **massive ball of gases**, **Saturn** does **not** have a **solid surface**. The planet is best known for its **rings**. The **nine continuous rings**, plus other **arcs**, are made of **rock**, **ice** and **dust**. Saturn also has at least **62 moons**. One of them, **Titan**, is **larger** than the planet **Mercury**!

## JUPITER

The **fifth** planet from the Sun, **Jupiter**, is a **gas giant**. This means it's made up of **gases** and **liquids** that most likely surround a **core** of **hot**, thick '**soup**' instead of solid rock. Its atmosphere is composed of **turbulent clouds** of **chemical gases** that swirl in massive storms. Jupiter has **50** known **moons**, but scientists believe there could be at least **17 more**!

## URANUS

The **seventh** planet from the Sun, and the **third largest in diameter**, **Uranus** was only discovered in **1781**. That's thousands of years after many of the other planets were spotted.

## NEPTUNE

The **furthest** planet from the Sun, **Neptune**, like its neighbour **Uranus**, is called an '**ice giant**'. It's made up of **gases**, **ice** and **rock**. Temperatures on the planet are beyond frosty – about **-210°C**.

Our solar system is **4.6 billion years old**!

Distances and sizes not to scale!

SATURN

NEPTUNE

URANUS

## ASTEROID BELT

The planets are divided by an **asteroid belt**, a **320-million-km-wide** ring of **massive rocks** that are too small to be planets.

## YOUR SPACE QUESTIONS ANSWERED!

### WHAT IS SPACE?

That's a famously hard question to answer. The simple response is that space is everything in the universe beginning about **100km** above Earth. Of course, to **astronomers** and **astrophysicists**, the scientists who study space, it's much more. It's a never-ending mystery!

### WHAT IS A PLANET?

A **planet** is a large body of **rock**, **gas** or other material **orbiting a star** in space. Some planets are **small** and **rocky**, such as **Mercury**. Others are **huge** and **gassy**, such as **Jupiter**. A planet can have one or more **moons** orbiting around it.

### WHAT IS ATMOSPHERE?

Some planets, such as **Earth**, have an **atmosphere**, or a **layer of gases** that **surrounds** and **protects** them. Earth's atmosphere has **five** main layers. The **outermost** layer, called the **exosphere**, merges with outer space.

The **Andromeda galaxy** contains a **trillion stars**!

### WHAT IS A GALAXY?

A **galaxy** is a collection of **stars** and **planets** held together by **gravity**. Galaxies can take different shapes. For example, the galaxy we Earthlings live in, the **Milky Way**, is a **spiral galaxy**. That means it's shaped like a **whirlpool** in which stars, planets and all other materials **rotate** around a central point. Some galaxies are shaped like a **watermelon**, or like a **tadpole** with a round head and a trailing tail. There are also **double** and **multiple** galaxies, where more than one galaxy is linked together.

**WIN!**

This page has been adapted from **Everything Space**, by **Helaine Becker**, published by **Nat Geo Kids Books**. For your chance to win one of **ten** copies, just answer this question...

**Q** On average, how far away is the Moon from Earth?

- a) 3.84km
- b) 384,400km
- c) 3.84 million km

Enter on page 55





# IN IT TO WIN IT!

Enter on page 55 or online at [natgeokids.com](http://natgeokids.com)

## WIN! A NATURE BOOK BUNDLE

Celebrate our planet and all the incredible creatures that live on it with this brill book bundle from **Nosy Crow**.

The National Trust's **2020 Nature Month-by-Month Children's Almanac** is the perfect guide to the coming year in nature. It includes **illustrated nature spotter guides**, craft ideas, **recipes** and much more.

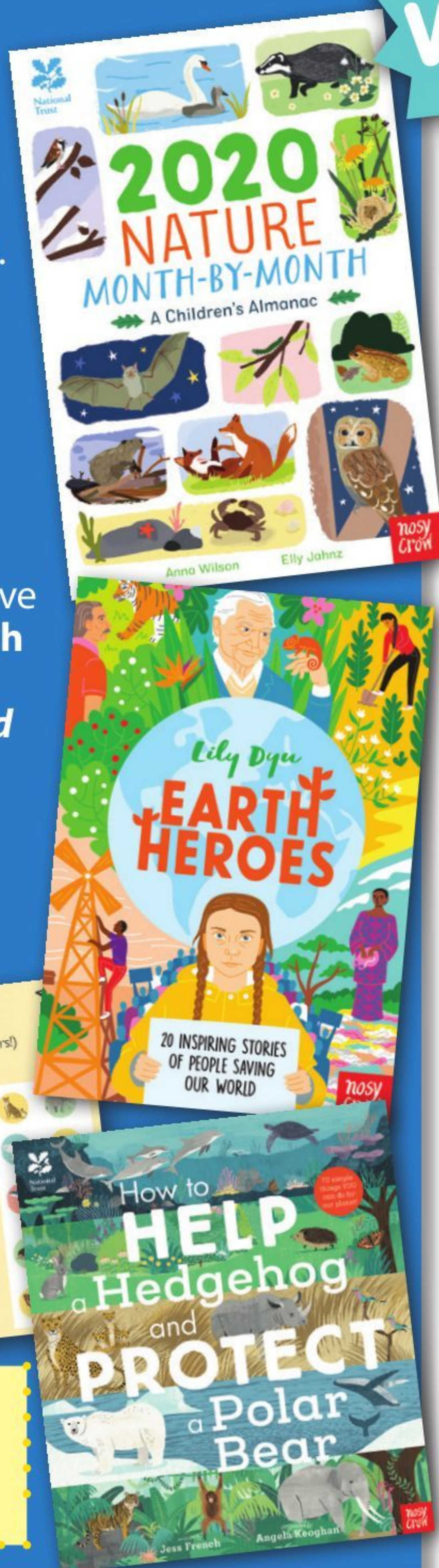
**Earth Heroes** features **20 inspiring stories** about the people helping to save our planet – from **David Attenborough** to **Greta Thunberg**.

And in **How to Help a Hedgehog and Protect a Polar Bear** learn what you can do to help endangered animals and make the world a better place.

**Twelve** nature lovers will bag all **three books** plus a **How to Help a Hedgehog and Protect a Polar Bear wallchart**.

Available from all good bookshops.

**Q** When did David Attenborough make his first TV appearance?  
a) 1854 b) 1954 c) 2014



## WIN! JOHN ADAMS KITS

These super-fun **John Adams kits** are sure to get your friends giggling and squealing in delight.

**Street Magic** helps you master cool **magic tricks** such as making **objects magically appear** in your hands or turning **blank pieces of paper** into **money**. Cool!

**You've Been Pranked** is a collection of **40 practical jokes** that's guaranteed to create laughs, screams and surprised faces.

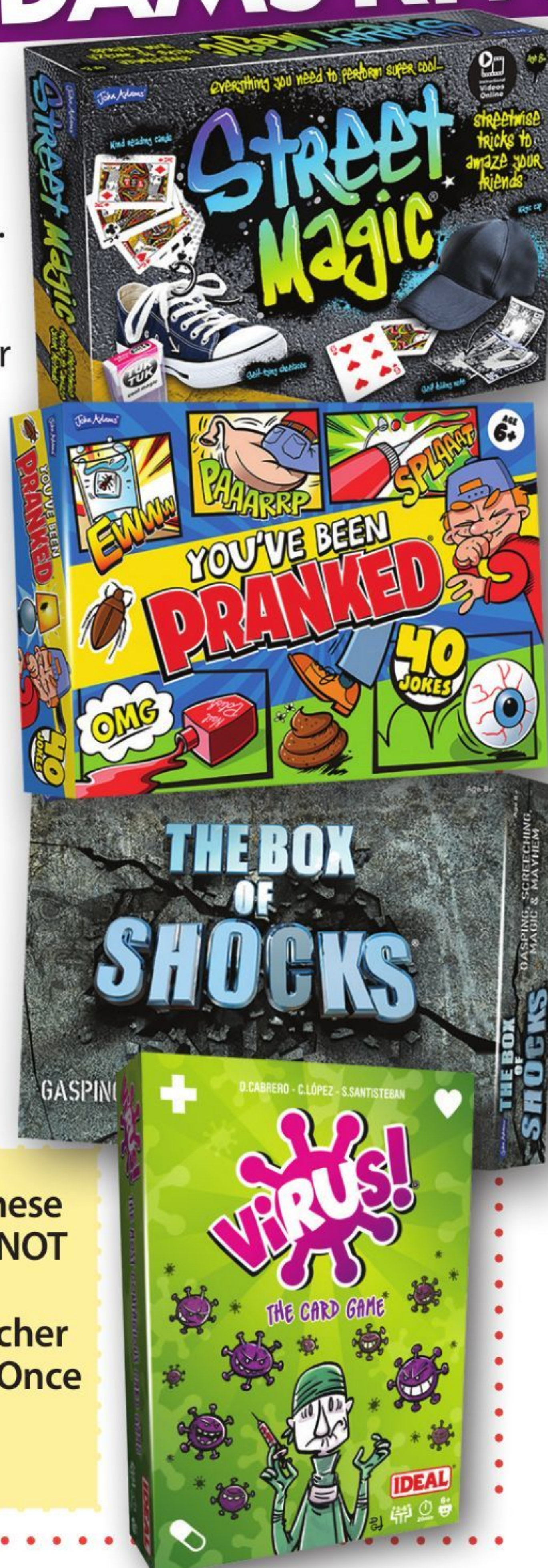
Startle your friends and family with tons of **wacky tricks** from **The Box of Shocks**. Take your victim totally by surprise and extract a satisfying **shriek!**

In the fast-paced **card game VIRUS!**, you must **immunise** your body from the deadly disease while trying to **stop your opponents** from **infecting, destroying** or **stealing** your **organs**. Yikes!

**Six** lucky winners will grab **all four kits**.

Head over to **johnadams.co.uk** for more cool kits.

**Q** Which of these book series is NOT about magic?  
a) Dreamsnatcher  
b) Wizards of Once  
c) Diary of a Wimpy Kid



## WIN! ROBO WUNDERKIND KITS

Learn how to build and code your very own robots with **Robo Wunderkind**.

Follow the visual instructions to build and code your robot – the **blocks**, which are **colour-coded**

based on function, snap together easily. You can even

**customise** your robots with you own **LEGO** pieces. Cool!

Use the **Robo Code app** to programme your robot to **play music**, **detect obstacles**, **drive** and more. Then, when you're done, break your robot apart and start all over again!

**One** winner will zip off with a **Robo Wunderkind Education Kit** and an **Advanced Kit**. One runner-up will scoop the **Education Kit**.

Available from **Amazon.co.uk**

**Q** Which of these is a famous film robot?  
a) WALL-E b) FENCE-E c) HEDGE-E





ENTER  
ALL  
COMPS  
ON PAGE  
55!

54 chances  
to win!

## WIN! A DINO-MITE THEME PARK SLEEPOVER

Fancy an **out-of-hours** adventure meeting the roaring, tail-thrashing **dinosaurs** who roam **Gulliver's Theme Park** after dark? Then enter this comp to win a wild **sleepover** with **five** of your **friends** and **family**!

After enjoying epic **dino-themed activities, games** and a **magical movie**, snuggle up for your first night in a special **dino-den**! The next day, wolf down some delicious brekkie before heading into the **theme park**. Explore loads of exciting rides and attractions before winding down in your cosy dino-den for a second night.

**One** lucky NG KiDS reader will win a **family ticket** for up to **six people** and a **two-night stay** at any of **Gulliver's three theme parks**. Roar-some!

● Visit [gulliversfun.co.uk](http://gulliversfun.co.uk) to book tickets



**Q** Which of these dinosaurs was the tallest?  
a) Velociraptor b) Triceratops c) Diplodocus

A family ticket is for a minimum of 1 child and 1 adult. The winner can choose from Gulliver's World (Warrington), Gulliver's Kingdom (Matlock Bath) or Gulliver's Land (Milton Keynes). Selected dates, subject to availability, terms and conditions apply, and activities vary between parks. 'Gully's Hotline' will contact the winner directly to book their short break. Travel not included.

## WIN! OOZE LABS SETS

Enjoy lots of squidgy, slippery fun with the **Ooze Labs Chemistry Station** from **Thames & Kosmos**.

Set up the special **laboratory** to mix up some slimy, fizzy, colourful and bubbly experiments. Using **lab equipment** – including a **syringe, measuring cup, pipette, spatula, petri dish** and a **funnel** – you can carry out **20 exciting experiments**, from **cabbage juice pH tests** to **fizzing reactions**!

Then be the lead chemist in your very own out-of-this-world **Alien Slime Lab**. Can you identify the UFOs – **Unidentified Funky Oozes**?

We have **eight** of both sets to give away!

● Head to [thamesandkosmos.co.uk](http://thamesandkosmos.co.uk) to learn about more inspiring products



**Q** Which of these objects might you find in a lab?  
a) Exam tube b) Test tube  
c) Study tube



## WIN! SELFIE CLOTHING

Get creative and customise your own clobber with the **Selfie Clothing Company**!

Their fashionable clothes come in a range of varied designs – from **dinosaurs** to **jungle animals, unicorns** and **superheroes**. What's more, the outlined designs are ready made for you to **colour in**. Each item comes with a range of fab **fabric pens** that let you **personalise** your threads any way you see fit. How cool is that?

**Twenty-five** budding fashion designers will win **Selfie Clothing** products worth up to **£28**.

● Sashay over to [selfieclothing.co.uk](http://selfieclothing.co.uk)



**Q** What's another name for the 'runway' that fashion models walk down?  
a) Mousewalk b) Catwalk c) Dogwalk

Winners will receive Selfie tops, capes, hats or Christmas stockings, depending on age and availability of stock.



# JUNIOR EXPLORERS' CLUB

## ACTION FOR ANIMALS



Benjamin

Benjamin made a racket while marching for foxes!



Dear NG KiDS,  
This year I've been on two **anti-foxhunting marches**. Foxhunting is **banned** in the UK but lots of foxes are still hunted every week. The marches I went on in **Brighton** and **London** were to try and get **police** to **enforce the ban** and stop this **cruel activity**. I made **banners** and wore a **fox suit**, too! Everyone was very **friendly**, but we made lots of **noise** with **drums** and **whistles**, and by **raising our voices**!

**Benjamin, 13**

● Foxhunting is a very controversial subject, Benjamin. Thanks for sharing your passionate feelings with us.

## ART ZONE!

Hi NG KiDS!  
I love **crafts**. A lot of the time I mix my love of crafting and my love of **nature** together. This time I gathered some **fallen leaves** from my garden and my **quilling materials** to make this **fox collage**. I hope you like it.  
**Mischa, 10**  
● We've got a lot of fox fans in this issue! Lovely stuff, Mischa.



HA  
HA

LOLZ

HA  
HA

Q What do dogs have on their pizza?  
A Extra **pup-peroni**!  
**Jack, 10**

HA  
HA

HA  
HA



## WILDLIFE WATCH

This is a photo of a **stag beetle** I found while on holiday in **Romania**. We measured him and he was **7cm long** – check out his massive 'antlers'! He was very friendly and happy to **crawl onto my hand** and up my arm with his spiky claws. During the day he stayed in the wall of a well and every night he came out for a walk around the area. My family said he was the **biggest beetle** they had ever seen!

**Amelie, 6**

● Wow! That might be the biggest beetle we've ever seen, too, Amelie!



Amelie with her huge new friend!



We want to hear from YOU! Send in your artwork, jokes, craft pics and pet photos; tell us about your wildlife sightings, hobbies and interests, and share your opinions! Email [kids@ngkids.co.uk](mailto:kids@ngkids.co.uk) or write to the address on page 3. A selection will be printed on this page. Every reader on these pages will receive a copy of *To the Moon and Back: My Apollo 11 Adventure!*

Available at [harpercollins.co.uk](http://harpercollins.co.uk)

We're sorry, but we won't be able to return your art or photos.



## POSTCARD FROM...

South Africa

A baby dassie



Robin

Hi NG KIDS,  
This year I went on holiday to Cape Town in South Africa. We got to ride in a cable car up Table Mountain, which is the flattest mountain in the Cape Fold Belt mountain range. Some of the wildlife we saw at the top included dassies (also called rock hyraxes), puff adders and elands, which are a kind of antelope. I had a great time at the beach, too!  
Robin, 10

Looks like you had an amazing holiday, Robin! Did you know that dassies are related to elephants?!



Hi Tia

Tia  
the whippet  
x Italian  
greyhound,  
sent in by  
Gemma, 9

COVER  
STAR!

## YOUR MAKE-ITS!

Amaara  
preparing a  
feta feast for  
her family!



Here's me making the watermelon and feta salad from the September issue (168) of National Geographic Kids. My granny helped with the hard bits of the watermelon, but everything else I did all by myself! My mummy, daddy, granny and brother liked it so much that I had to make it again for them. It was really tasty!

Amaara, 7

Glad you enjoyed it, Amaara. We've been scoffing it lots, too!

## DIG IN!

Hey NG KIDS,  
I am a member of the Young Archaeology Club in Bishop Auckland. Recently I entered a national competition called 'Dig It!'... and I won!

The prize, was a day at Bamburgh Castle in Northumberland with expert archaeologists. We were taught about zooarchaeology (the study of animal remains) and I got to dig in the castle's trench. I found fascinating animal bones and oyster shells, too.

Myles, 10

Well done, Myles. Your day out sounds fascinating!



Myles got stuck in and uncovered some wild surprises!



# FUN

# STUFF

GAMES, LAUGHS, AND LOTS TO DO!

## SPACE SEARCH!

Can you find the space-related people, places and things listed below in this grid? Answers on page 56

- APOLLO ● ASTEROID ● ASTRONAUT ● COMET ● EAGLE NEBULA ● EARTH ● GALILEO
- HELEN SHARMAN ● HUBBLE ● ISS ● JUPITER ● MARS ● MERCURY ● MILKYWAY ● MOON
- NASA ● NEIL ARMSTRONG ● NEPTUNE ● ORION NEBULA ● PLUTO ● SATURN ● SHUTTLE
- URANUS ● VALENTINA TERESHKOVA ● VENUS ● VOYAGER ● YURI GAGARIN

WHO'S WHO?

**YURI GAGARIN**  
First human in space

**VALENTINA TERESHKOVA**  
First woman in space

**HELEN SHARMAN**  
First Briton in space

**NEIL ARMSTRONG**  
First person on the Moon

M	H	B	L	E	M	W	A	R	L	W	S	A	I	J	T	Z	D	C	O
A	P	E	H	L	I	E	S	D	D	S	U	V	L	U	R	A	N	U	S
L	E	S	Y	B	L	H	A	B	V	Z	N	O	G	Z	O	M	D	A	V
U	S	G	X	B	K	N	N	K	X	V	E	K	E	S	B	M	T	F	B
B	R	S	L	U	Y	V	B	K	B	H	V	H	N	N	G	U	Z	M	A
E	D	N	D	H	W	V	B	C	T	L	A	S	T	E	R	O	I	D	I
N	I	R	A	G	A	G	I	R	U	Y	E	E	M	N	P	M	N	I	S
N	J	M	K	J	Y	M	A	R	V	U	K	R	E	L	G	E	N	Y	E
O	J	M	O	S	L	E	F	O	H	J	M	E	U	S	N	R	A	S	A
I	N	O	H	O	C	O	Y	F	H	C	R	T	R	G	O	C	M	G	G
R	E	E	N	S	Z	A	O	I	R	O	O	A	S	I	R	U	R	Q	L
O	P	L	S	T	G	S	V	G	I	M	M	N	U	R	T	R	A	R	E
D	T	I	X	E	J	T	V	W	M	E	N	I	E	E	S	Y	H	E	N
V	U	L	R	A	W	R	H	O	L	T	V	T	O	L	M	R	S	F	E
S	N	A	X	N	F	O	O	O	E	E	I	N	B	T	R	T	N	I	B
F	E	G	V	Z	W	N	Q	U	J	P	N	E	X	T	A	N	E	B	U
F	A	L	D	R	E	A	E	N	U	Z	Q	L	I	U	L	P	L	W	L
X	T	V	Q	G	O	U	U	J	K	D	J	A	H	H	I	L	E	K	A
J	P	B	A	G	C	T	K	Z	P	B	S	V	M	S	E	A	H	Y	K
I	M	U	T	D	R	M	O	L	L	O	P	A	B	Z	N	P	G	U	R



# SPACE SPOT THE DIFFERENCE

Can you find TEN differences between these two starry scenes? [Answers on page 56](#)



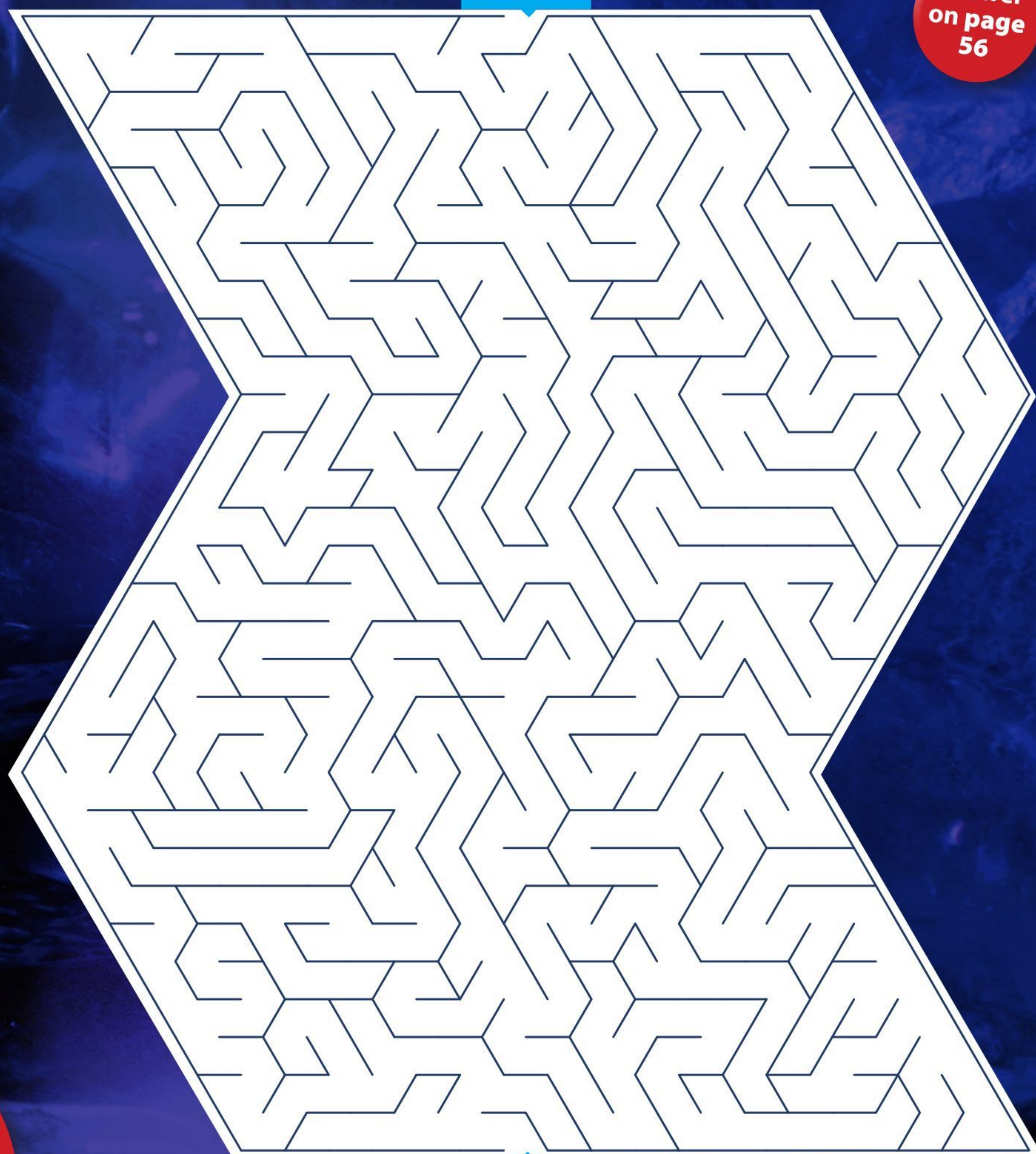


# CAVE CONUNDRUM

In the new book *Explorer Academy: The Double Helix*, 12-year-old Cruz Coronado and his friends break secret codes in order to fight dangerous villains and solve mysteries. While exploring the ice caves of Iceland, the students get lost in a glacier. Can you help them find their way out?

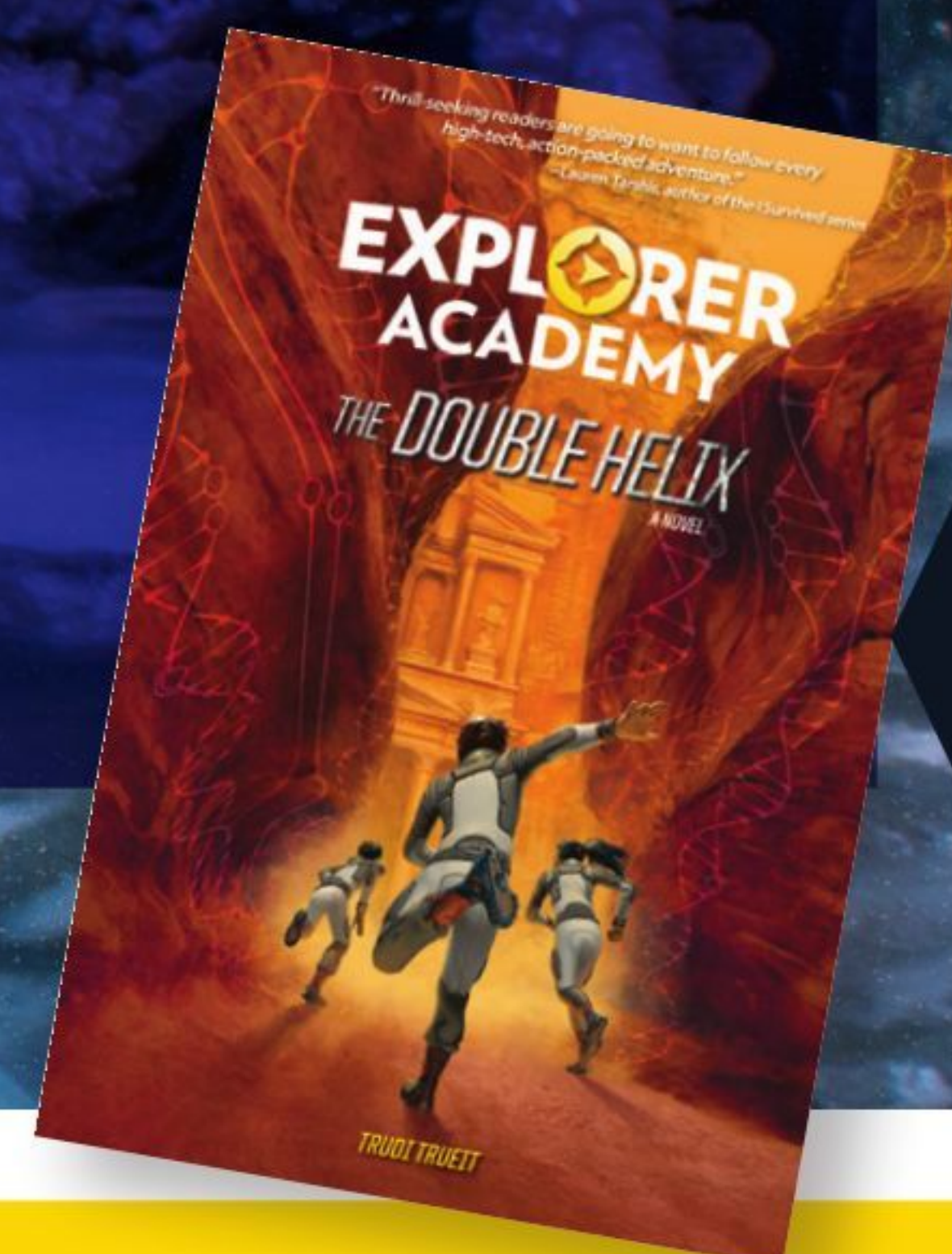
START

Answer  
on page  
56



FINISH

Trapped classmates **Sailor York, Cruz Coronado** and **Bryndis Jónsdóttir** (right) check their technology to see if they can signal for help.



CHECK  
OUT  
THE  
BOOK!

Ice cave art illustration: Scott Plumbe.



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# FUN STUFF MAKE IT

# HALLOWEEN

Go trick-or-treating in a cool ho

## What you'll need

- Tape measure
- Black fabric at least 2m by 1m in size
- Black marker
- Scissors
- Hot-glue gun or Superglue
- String or twine
- Cardboard
- Black paint
- 2 hair grips

## Start here!



**1** Ask a parent or friend to use a measuring tape to find the distance between your fingertips when your arms are outstretched. Cut a rectangle of fabric that is the length of your 'wingspan' by 1m deep.



**2** Fold the fabric in half lengthways, then draw three 'scallops' diagonally across the fabric with the marker.



**3** Cut the fabric along the outline, then unfold the fabric and lay it on a flat surface.



**5** Ask an adult to stick one loop near the tip of each wing using a hot-glue gun or Superglue. These will be the finger loops to hold your wings in place!



**4** Cut two 8-cm-long pieces of string or twine and twist each into a loop as shown.



**6** To make the ears, cut two triangles from the cardboard, about 6cm wide and 9cm tall.



**7** Paint the triangles black and, when dry, fold the bottom of the triangles to form a base. Fasten them to your hair with grips.

## TOP TIP

Trick-or-treat with a reusable cloth bag or pillowcase instead of a plastic bucket or bag.

## Halloween night

To wear your costume, dress all in black and then drape the bat wings against your back, looping the strings around one finger on each hand. Use hair grips to secure the ears to your hair, or glue them to an old headband.



# N BAT SUIT!

memade costume!

NATIONAL  
GEOGRAPHIC  
KIDS

Send us  
your entries  
by 14 November 2019

## COMPETITION ENTRY COUPON

Just tick the box of any competitions you want to enter!

### Get Experimental!

#### FIZZY BOTTLE ROCKETS

Make a self-propelled rocket from a recycled sports bottle!

#### What you'll need

- Small (500ml or less) sports drinks bottle with a cap lid which pops open
- Fizzy headache or vitamin tablets (eg Alka Seltzer or Berocca)
- Mug, glass or jar that allows an upside-down bottle to fit inside with lid touching bottom



1. Unscrew the lid of your bottle and make sure the pop-up lid is firmly pressed down.

2. Half-fill the bottle with warm water. Break two fizzy tablets in half and drop them into the bottle.

3. Quickly screw the lid back on firmly, give the bottle a shake and place it upside down in the mug or jar.

4. Stand back and wait for it to blast off! Allow at least three minutes before checking the rocket. If it hasn't launched, try again with slightly warmer water.



DON'T  
drink the  
fizzy  
liquid!



Experiment  
with the  
temperature, different  
sizes of bottle and the  
number of tablets to  
find out what combo  
gives you the highest  
flying rocket!

#### What's going on?

Fizzy tablets contain a **chemical** which reacts with water to produce **carbon dioxide gas**. This gas **builds up** inside the bottle until the **pressure** is enough to **pop the lid**. This **pushes down** on the **bottom of the glass**, which results in an **upwards push** on the **bottle**. Once in the air, the **liquid** firing out of the bottle **pushes it even further**, just like the gases coming out of a real rocket!

This fun home science experiment is from our pals at the **Royal Institution**. Head to **rigb.org** for more **exciting activities** and to book tickets for the RI's interactive **Family Fun Day** on **26 October**.

#### PAGE 8-9 WHAT'S UP?

**The Addams Family goody bags** ☐

What's the name of The Addams' daughter?

**Wednesday** ☐ **Thursday** ☐ **Friday** ☐

**Circus 1903** ☐

What's the name of the structure where a circus takes place?

**Big Tap** ☐ **Big Tip** ☐ **Big Top** ☐

**Book bundle** ☐

What was the first name of famous painter

Picasso, who bought art by Congo the chimp?

**Pablo** ☐ **Paolo** ☐ **Paul** ☐

#### PAGE 38-39 LEGO

**Stargazing trip and LEGO City sets** ☐

Don't forget to attach your design (write your name and contact details on the back of the design) or upload it online

#### PAGE 44-45 SPACE

**Everything Space book** ☐

On average, how far away is the Moon from Earth?

**3.84km** ☐ **384,400km** ☐ **3.84 million km** ☐

#### PAGE 46-47 WIN IT

**A nature book bundle** ☐

When did David Attenborough make his first TV appearance?

**1854** ☐ **1954** ☐ **2014** ☐

**John Adams kits** ☐

Which of these book series is NOT about magic?

**Dreamsnatcher** ☐ **Wizards of Once** ☐ **Diary of a Wimpy Kid** ☐

**Robo Wunderkind kits** ☐

Which of these is a famous film robot?

**WALL-E** ☐ **FENCE-E** ☐ **HEDGE-E** ☐

**A dino-mite themepark sleepover** ☐

Which of these dinosaurs was the tallest?

**Velociraptor** ☐ **Triceratops** ☐ **Diplodocus** ☐

**Ooze labs sets** ☐

Which of these objects might you find in a lab?

**Exam tube** ☐ **Test tube** ☐ **Study tube** ☐

**Selfie clothing** ☐

What's another name for the 'runway' that fashion models walk down?

**Mousewalk** ☐ **Catwalk** ☐ **Dogwalk** ☐

Winners will  
be chosen at  
random from  
correct entries.  
**GOOD LUCK!**

Now turn over and answer  
some easy questions!



# OVER TO YOU!

Your chance to tell us what you think

## What made you buy NG KiDS this month?

- ☐ If you subscribe, please tick this box
- ☐ The cover photo (cute cat) ☐ 155 Prizes Inside!
- ☐ Halloween Special! ☐ Swimming Sea Wolves!
- ☐ How Squeamish Are You? ☐ Science of Spooky!

## What's the best thing about this issue?

## What's your least favourite thing about this issue?

## Have you taken part in a School Climate Strike? Tell us more...

- ☐ We're looking for new book reviewers! For your chance to take part, tick this box and tell us what kind of books you like below!

## WRITE TO US!

Do YOU want to appear on our Junior Explorers' Club pages? Ask your parent or guardian to email your letters, drawings and photos to us at [kids@ngkids.co.uk](mailto:kids@ngkids.co.uk) or post them to the address below – and we could print them in Nat Geo Kids!

## YOUR DETAILS!

Name ..... Date of birth .....

Address .....

Postcode .....

If you are under the age of 13, please ask a parent or guardian to complete this section:

Parent/guardian's name .....

Parent/guardian's signature .....

Telephone .....

Email .....

I acknowledge my child's participation in entering these competitions, the reader survey and/or the JEC page.

We like to stay in touch with our readers to tell them about all of the latest cool offers and awesome news from Nat Geo Kids. We won't share your information with third parties – unless you've won a comp!

- ☐ Ask your parent or guardian to tick this box if they're happy for us and prize providers to contact you regarding comp entries and your appearance in the mag

Cut along the dotted line and send this entry coupon to:  
NG KiDS Competitions November 2019 issue,  
Third Floor, 12-14 Berry Street, London, EC1V 0AU  
Hurry – the closing date for entries is 14 November 2019!

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# FUN STUFF ANSWERS

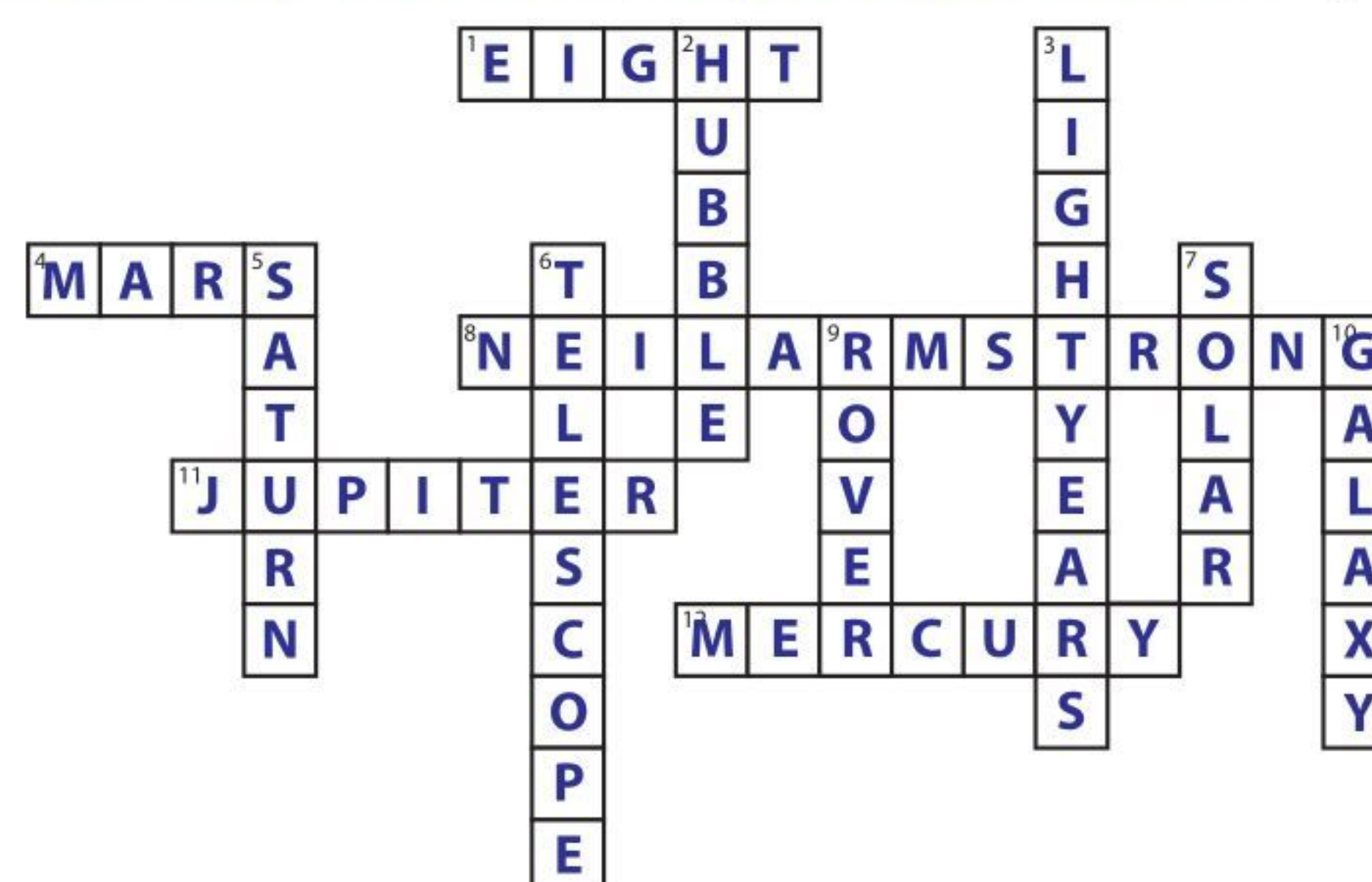
## FEAR OF WHAT?! (page 23)

1) D (Ailurophobia – fear of cats); 2) A (Koumpounophobia – fear of buttons); 3) B (Anthophobia – fear of flowers); 4) C (Ombrophobia – fear of rain).

## MEGA MARS QUIZ (page 37)

1) a; 2) TRUE; 3) b; 4) FALSE; 5) b; 6) TRUE – Olympus Mons is about three times taller than Mount Everest; 7) b; 8) FALSE – It's the second smallest; 9) 3 – Mercury, Venus and Earth are all closer to the Sun.

## SUPER SPACE CROSSWORD (page 37)



## SPACE SEARCH! (page 50)



## SPOT THE DIFFERENCE (page 51)



## CAVE CONUNDRUM MAZE (page 52)







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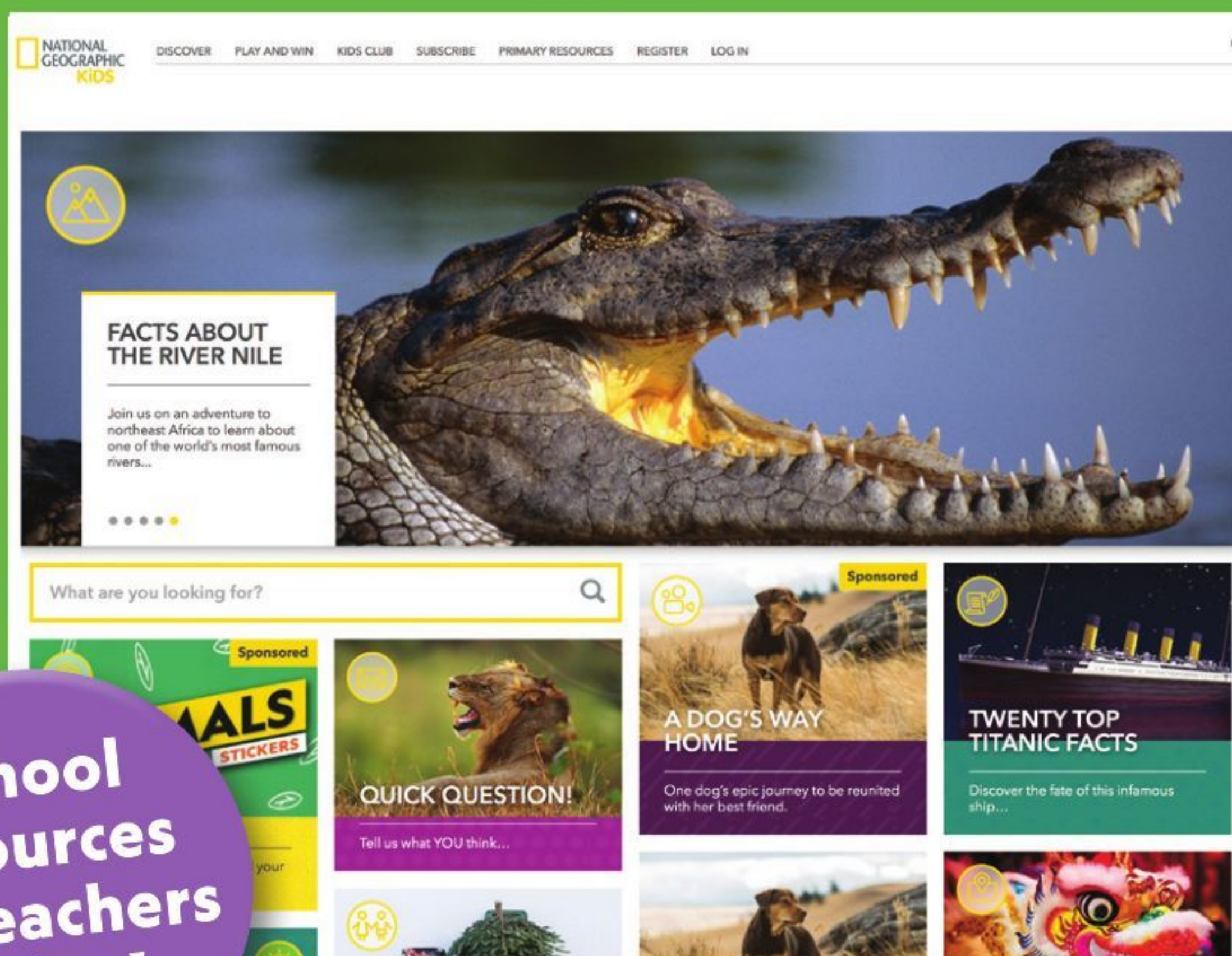


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