

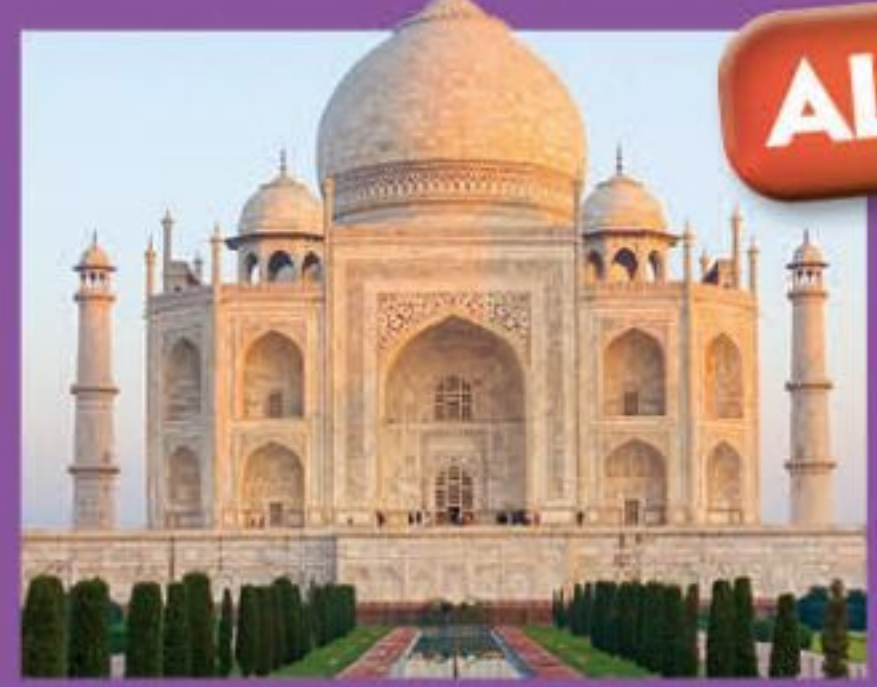


NATIONAL GEOGRAPHIC

BUMPER BOREDOM-BUSTING FUN STUFF!

KIDS

SEARCHING FOR SNOW LEOPARDS



ALL ABOUT THE

TAJ MAHAL

214 PRIZES INSIDE



REAL-LIFE FANTASTIC BEASTS!



Calling all young minds...

What problem in the world would you like to solve?

The Young Imagineers Challenge invites young people to think about the important issues they feel the world faces today and pick one thing they would like to see solved in the future. There are three categories; health, sustainability and technology.

The public can vote for the challenges they most want to see solved via our website and our top entrant in each category will see their challenge brought to life in a live-streamed, interactive lesson, presented by Dallas Campbell.

To enter, simply visit the site below, think of a challenge for one, or all of the categories and submit it using the entries portal. The closing date is Sunday 31st January 2021

Good luck!

WWW.YOUNGIMAGINEERS.EQUINOR.COM



Happy New Year, Kids!

Hope you've had a fun holiday and a great start to 2021!



In this month's mag, we find out about one of the world's most elusive big cats – the snow leopard. Turn to page 12 to meet this fantastic feline. Also this issue, we learn 30 cool facts about icy things, and check out one of the new Wonders of the World, India's Taj Mahal! Discover how much fantastical beasts have in common with real-life animals on page 20, and then dive into the ocean to marvel at eight colourful sea slugs!

Don't miss this month's bumper Fun Stuff section – it's guaranteed to bamboozle your brain!

Enjoy the issue!

The Nat Geo Kids team

FREE this issue...



4 POSTERS!

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What's inside...



We're the masters of hide and seek!

12 GHOST CATS!

We head to the Himalayas on the trail of mysterious snow leopards



18 COOL FACTS

Thirty f-f-freezing facts that will chill you out!



20 MUSEUM MARVELS

Discover the links between Fantastic Beasts and real-life creatures!



32 FIT FOR A QUEEN!

Discover why India's incredible Taj Mahal was built...



38 BUMPER FUN STUFF

Ten pages of puzzles and quizzes that'll give your brain a workout

PLUS!

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

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

7 Bet You Didn't Know Six icy facts about Antarctica!

8 What's UP? This month's best movies, TV, websites and books!

10 Big Picture Get up close to some itsy-bitsy octopuses!

23 Weird But True Nine crazy facts!

29 Mini Histories Comic Max meets Queen Elizabeth II

30 Awesome 8 Super-spectacular sea slugs, aka nudibranchs!

34 Win It! You've got 90 chances to win this month. Woo hoo!

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

48 Make It! A brilliant bird feeder!

49 Puzzle answers and jokes Oi, no cheating!

INSIDE SCOOP

The latest news from around the globe...

Elephant rescue!



When an **elephant** fell into a well in **India**, over **50 people** came together to help save its life! The elephant tumbled down the **15-m hole** in November after wandering into **Dharmapuri village** near a forest in the southern **Tamil Nadu** state. The deep well was **covered by branches** and had **no barrier**.

To retrieve the animal, rescuers first **tried to pump water out** – until the **elephant attacked the pipes**. Then doctors calmed it down with **tranquillisers** before **large belts** were attached to its limbs. Local villagers threw **banana leaves** down for it to eat during the night. Eventually a **crane** arrived and winched the huge creature out, upside down!

Amazingly the elephant was **unharmd** by its ordeal and soon returned to the forest. *All's well that ends well!*



Crowd gathers to watch the rescue



The elephant is winched out of the well...



...before being released into the forest!

An army of volunteers helped clean beaches across the UK!

Facemasks litter beaches



Sadly, PPE gets everywhere



During September's **Great British Beach Clean**, over **70% of volunteers** found **discarded PPE (personal protective equipment)** among the litter they collected.

Although single-use **facemasks** and **gloves** are incredibly important to help **stop the spread of Covid-19**, if they're not disposed of properly they can **end up in the ocean**. This poses a huge problem for **marine animals**, as they can get **tangled in the items** or **mistake them for food**.

"Please remember to properly dispose of your PPE or, if appropriate, buy **reusable masks** or **make your own!**" urges **Catherine Gemmell**, from the **Marine Conservation Society**.

3 FAST FACTS!

World Radio Day

Time to tune in and celebrate the world's most widely consumed form of media on 13 February!

1 **Radio waves** are a type of safe **electromagnetic radiation**. They're transmitted by an **antenna** and picked up by a **receiver**, which converts the **electric signals** into **sound!** **Heinrich Hertz** proved their existence in **1887**.

2 **Guglielmo Marconi** sent the first **trans-Atlantic radio** signal in **1901**, and in **1906**, **Reginald Fessenden** made the world's first **radio broadcast** – a special **Christmas concert**. Today, there are **44,000 radio stations** worldwide!

3 Radio is important because it can be run at a **low cost** and reaches **remote communities** and **vulnerable people**. This year's **World Radio Day** promotes **diversity of programmes** and **broadcasters**, to reflect the diversity of **society**.

You can listen to broadcasts from all around the world at radio.garden



These days, radios are tiny – unlike this chunky old one!

Diamonds made from 'sky'!



Dale's diamonds are "bling without the sting"



Environmental entrepreneur **Dale Vince** has come up with a way of making **eco-friendly diamonds** – by **sucking carbon out of the sky!** Traditional diamond mining causes **damage to the planet**, and has also been linked to **wars, child labour and slavery**. But '**Skydiamonds**', developed in a **top-secret, five-year process**, are completely 'green'. And, according to Dale's team, they're identical to Earth-mined diamonds and are certified by the **International Gemological Institute**. Cool!

Multi-millionaire Dale is best known as the founder of the world's first **green energy company Ecotricity**, as well as being the chairman of **Forest Green Rovers** – the world's first **vegan football club!** "Living a greener life is not about giving stuff up," he says. "It's about doing things differently." Right on!

Chubby rodent gets stuck!



A cheeky little **dormouse** snuck inside a **bird feeder** to steal some winter snacks – but ate so much it got stuck!

The little rodent (right) was discovered snoozing among the nuts by a homeowner on the **Isle of Wight** in November, who contacted the **Hampshire Dormouse Group** to find out how to remove it. Thankfully, the cute critter was **safely returned to the wild**, no harm done.

"It's safe to say, this fatty will survive hibernation just fine," explains the group's **Catherine Hadler**.

● Seen any dormice lately? Register your sightings with the **People's Trust for Endangered Species** to help with **conservation efforts**. Find out more at tinyurl.com/DormouseDatabase



Dormice like this one can spend up to seven months of the year asleep!



PHIL

Check out the **Groundhog Day Funny Fill-in** on page 39!

CRAZY EVENT

GROUNDHOG DAY



Want to get find out the **weather forecast** this **February**? In the USA, some folk consult **Punxsutawney Phil** – the amazing *weather-predicting groundhog!* Every year, the people of **Punxsutawney** in **Pennsylvania** gather around the **rodent's burrow** and wait for him to **poke his head out**. Legend says that if **Phil** sees **his shadow** and returns to his **burrow**, there will be **six more weeks of winter weather** to come. But if **no shadow** is seen, **spring will arrive early!** The wacky tradition has been celebrated since **1886!** We suspect it *hasn't* been the same **Phil** all that time, though!

MAKE IT A DATE

What's going on this month?



Big Garden Birdwatch

Count the birds!
tinyurl.com/RSPBGardenBirdwatch



Children's Mental Health Week

Look after yourself and others
childrensmentalhealthweek.org.uk



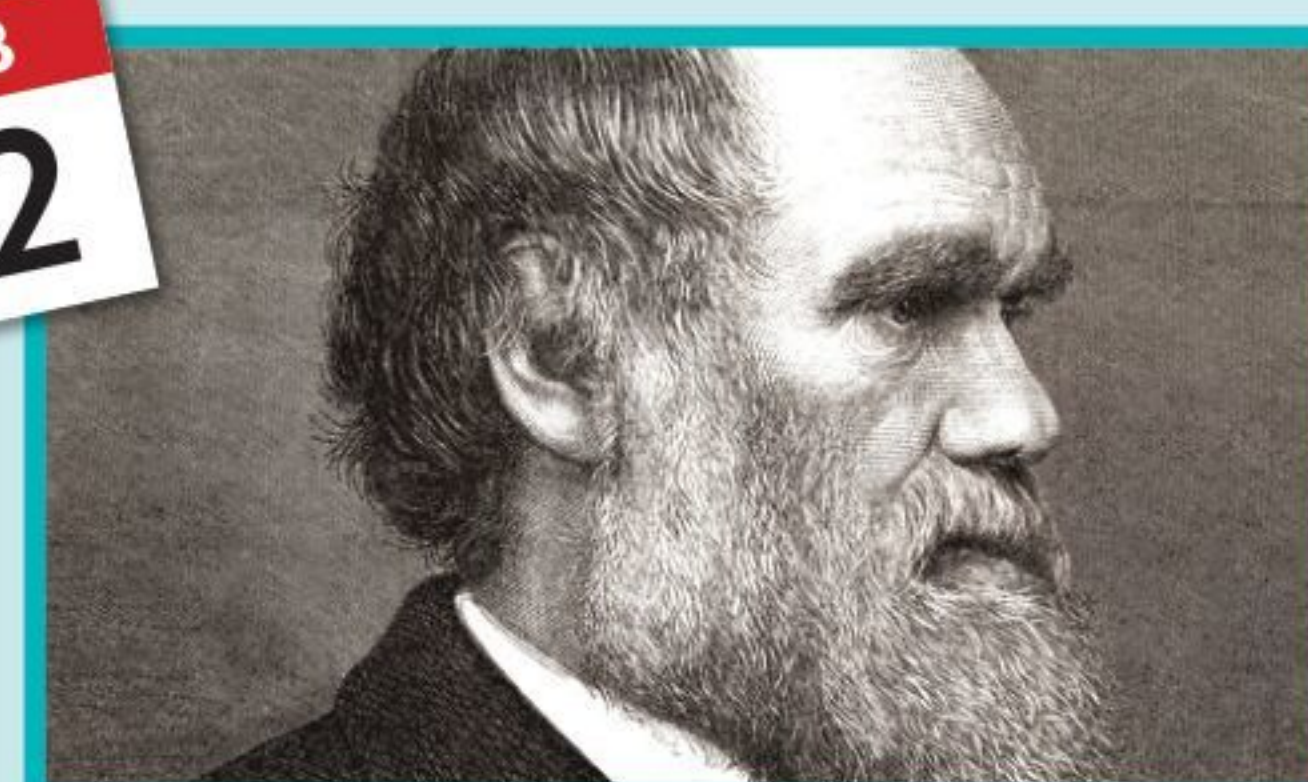
World Wetlands Day

Protect our planet's marshlands and swamps



International Day of Women and Girls in Science

Let's make science more equal!



Darwin Day

Celebrating the life and work of the famous naturalist

WACKY WORLD!

Check out the planet's strangest pictures...

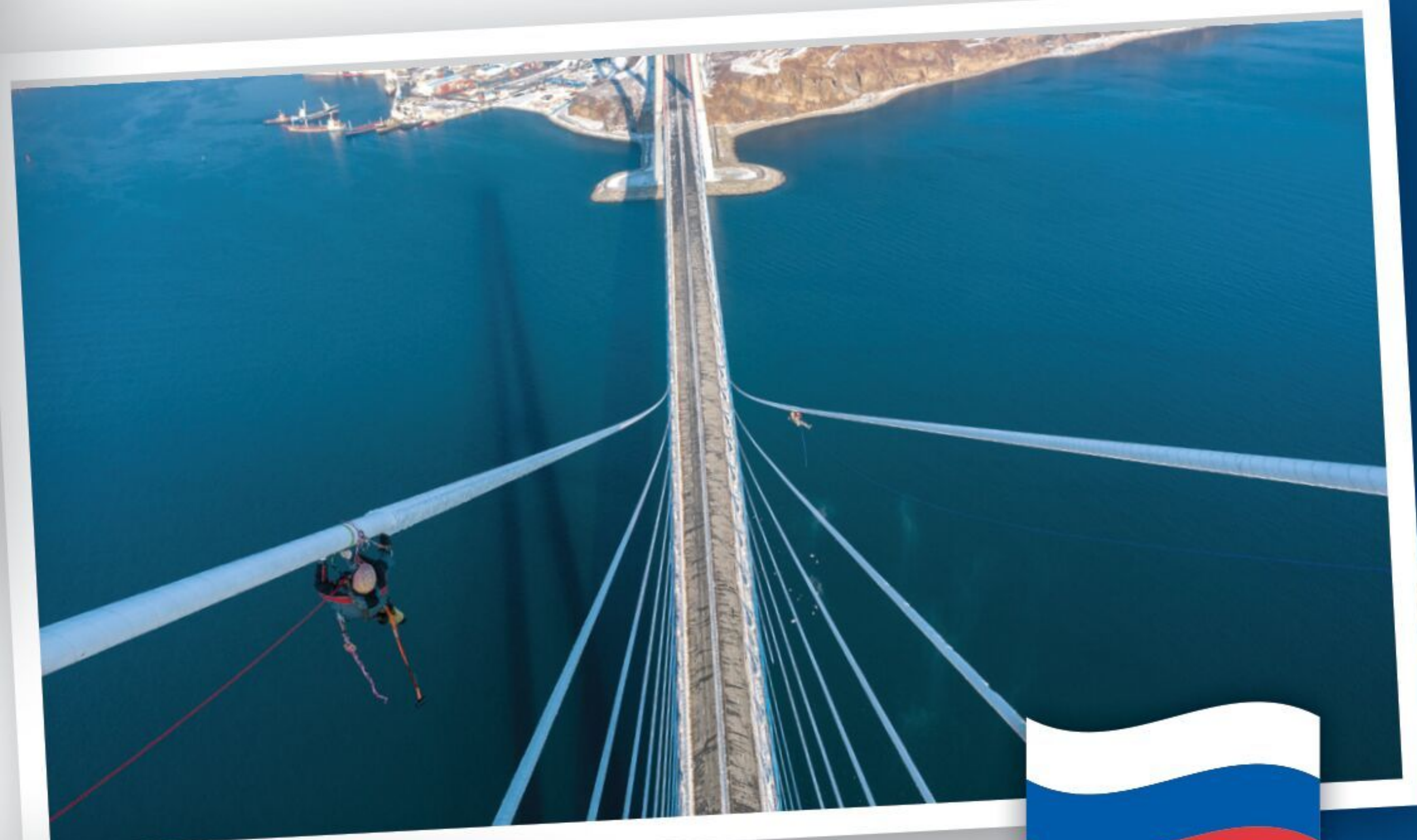


Ship split!

When a **cargo ship capsized in St. Simons Sound, Georgia, USA**, in **September 2019**, the crew thankfully escaped **unharm**ed. The ship is now being **sliced up** so it can be more easily removed – revealing the **4,200 brand-new cars** that had been out for delivery!

Crazy cleaners!

These **brave climbers** were pictured **clearing ice** off **Russia's vast Russky Bridge** in November. The crossing, which links the Russian city of **Vladivostok** to **Russky Island**, is **321m high** – that's the same height as a **97-storey building**! Would you dare do that job?



Field of figures!

Forget **penalty spots** and **centre circles** – here's a much more creative use of **football-pitch paint**! Called **6,000 Children**, the **biodegradable portrait** was painted on the side of a **hill** in **Hebden Bridge, West Yorkshire**, to mark **World Children's Day** in November. Sprayed by a group of artists called **Sand In Your Eye**, the **11,000-m²** image is made up of **6,000 silhouettes of kids playing**. Clever!

THEAT-AIR!

Daredevil **trapeze artists** took part in an **outdoor performance** of *The Shepherdess and the Chimney Sweep* by **Hans Christian Andersen** in **Prague, Czech Republic**, recently. The public watched from afar!

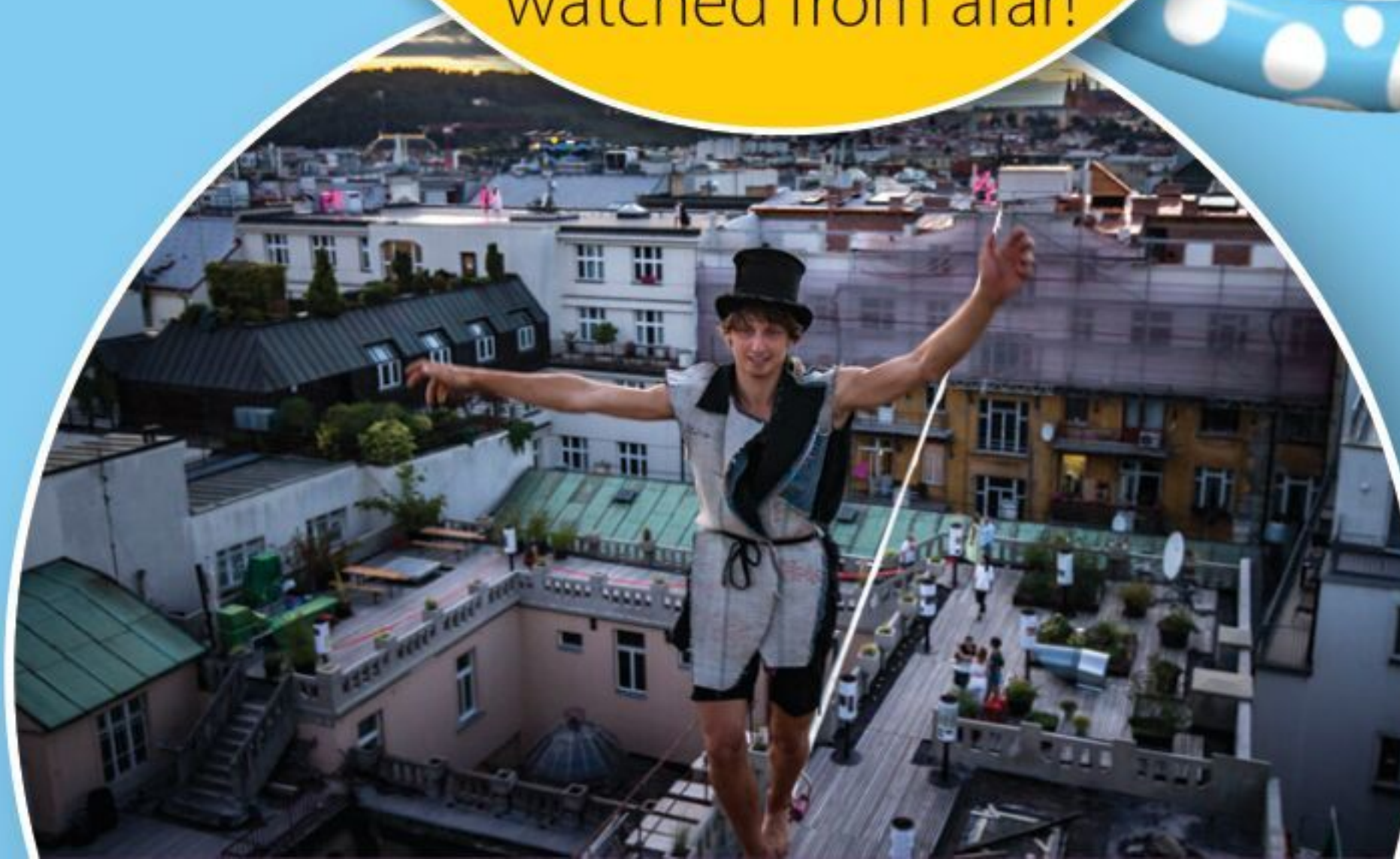


UNICORN FOR SALE!

Well, sort of. This **'life-sized' model of a unicorn** went up for sale at an art auction in London, last month. Magic!

COVID COP!

This **policeman in Chennai, India**, has made a few tweaks to his motorbike **helmet** for when he talks to the public about **social distancing** – he's turned it into a model of the **Coronavirus!**



**Bet You
Didn't
Know!**

6 Antarctic facts that will give you chills

1

Some **penguins** can dive more than 300m deep – that's about **150** times deeper than an Olympic swimming pool.

2

No dogs are **allowed** in Antarctica.

3

About **400 lakes** are hidden under Antarctic **ice**.

4

There's an **ozone hole** over Antarctica that's larger than **Australia**.

5

Wind gusts in Antarctica can blow more than 320kmph – almost as fast as a **racing car's** top speed.

6

Antarctica was located **near the Equator** hundreds of millions of years ago.

KING PENGUIN

WHAT'S UP?

Check out the latest TV, movies, websites and books! What will YOU get up to this month?

PHONE



BILL & TED FACE THE MUSIC



Bill and Ted are back in their third fab film!

Back in the **1980s**, loveable time-travelling slackers **Bill and Ted** were told by a visitor from the year **2688** that they'd one day **write a song** so incredible it would **unite the world**. Excellent!

However, cut to the present day and their band **The Wyld Stallyns** is stuck playing to **tiny crowds**, their masterpiece still **unwritten**. Bogus! With **time running out** before all of reality collapses, the best buds (with a little help from their **music-mad daughters Thea and Billie**) head off on a **hilarious time-travelling adventure** to save the day. Party on, dudes!

● Own it on digital from **9 January** and out on **4K, Blu-ray, DVD & VOD** from **25 January**

WIN! We're giving away **three copies** of this totally bodacious movie on **DVD**. For your chance to win, just answer this question:

Q Which of these is a real genre of music?
a) Flip-flop b) Tip-top c) Hip-hop

Can the dad dudes and their daughters save the day?!



WATERBEAR NETWORK



Do you love nature? Well, now you can watch tons of **top documentaries**, **engaging short films** and **inspirational media** about our wonderful world completely free!

WaterBear Network is the world's first interactive streaming platform **dedicated entirely to the future of our planet**. Amazing! What makes WaterBear Network really **unique** is that it allows subscribers to **take instant action while they're watching** – by getting involved with **volunteering projects, events, campaigns, or donating**.

● Visit waterbear.com to sign up for free and start watching!



MONSTER COURT



It's Judge Smudge!

Urggh! There are so many things in this world that are completely out of order – **embarrassing parents**, **boring teachers** and **early bedtimes**...

But don't worry, **Judge Martin Smudge** is here to help kids sort out their problems in his **Monster Court**. The **furry orange puppet** will be **dealing out monstrous punishments** to the people giving grief, so long as the kids swear to **tell the truth**, the whole truth, and nothing but the truth!

● Catch it on **BBC iPlayer** and the **CBBC Channel** in **January**



ALIEN WORLDS

Astronomers estimate there are a whopping **100,000 million stars** in our galaxy alone. That means there are **likely to be planets out there bursting with alien life!**

By applying the same **laws that govern life on Earth** to other worlds, this **thought-provoking series** imagines what these **alien planets** and the **creatures** that live on them **might look like**, bringing them to life with **stunning CGI**. Watch the **airborne lifeforms** that make their home in the thick atmosphere of fictional **planet Atlas**, and meet a **mega-advanced species** that lives on a planet called '**Terra**', orbiting an ageing star.

● Watch it on **Netflix** now

Could creatures like this live on other planets?!



KEY



Website



Event



Movie



DVD



Book

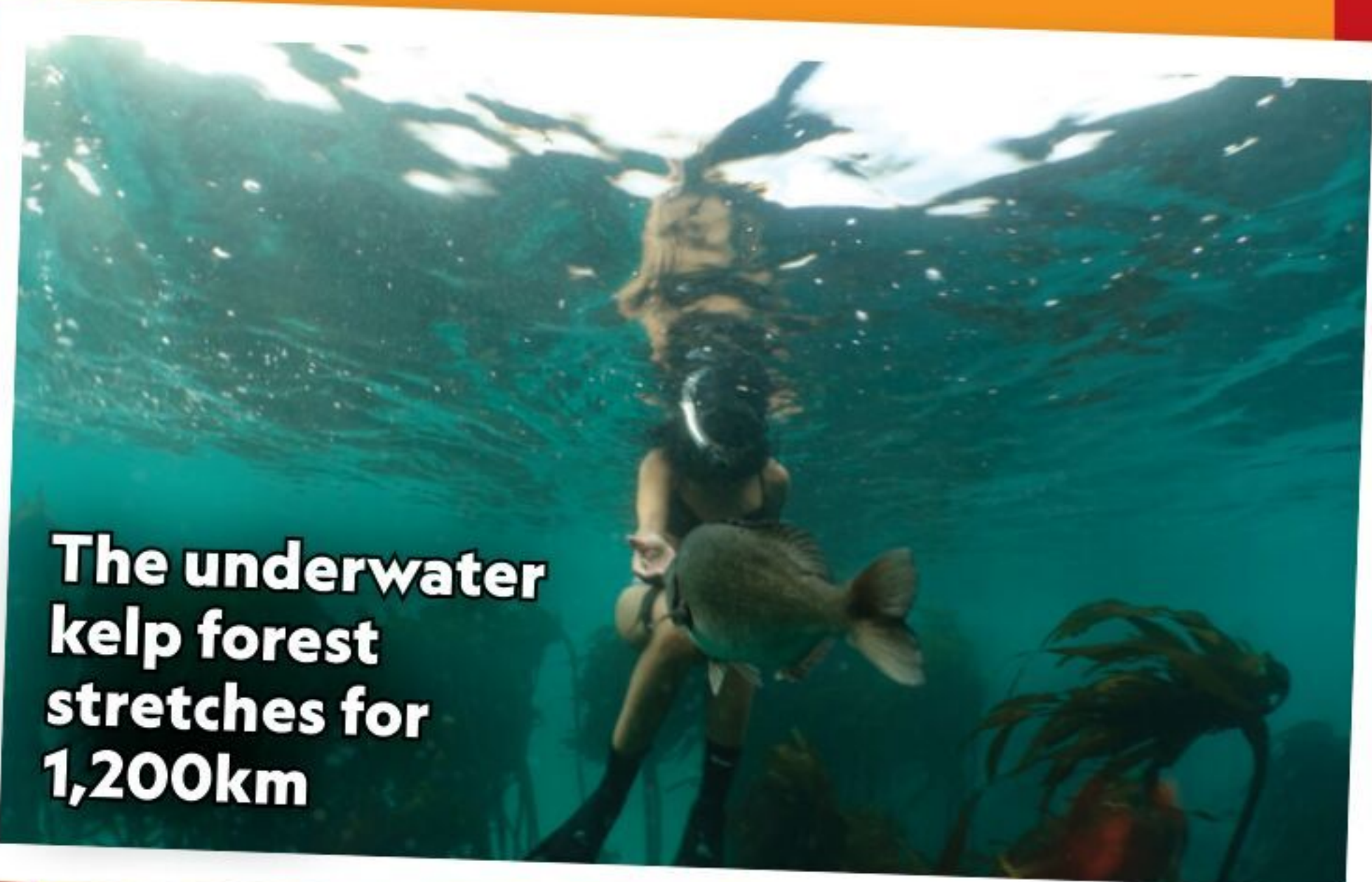


TV/Streaming



Your book reviews

TOP THREE FILMS ON WATERBEAR!



The underwater kelp forest stretches for 1,200km

1 AFRICA'S HIDDEN SEAFOREST

Deep beneath the waves in the **Atlantic Ocean** lies the **Great African Seaforest!** This **magical movie** explores the **creatures among the kelp!**



Get ready for lemur music!

2 REMIXING MADAGASCAR

Journey across the island of **Madagascar** with **sound artist Ben Mirin** as he **records the voices of nature** and **local people**, transforming them into **incredible music.**



Pals for life!

3 ESME AND MILLIE

When **baby rhino Esme** first arrives at the **Hoedspruit Endangered Species Trust** in **South Africa**, she's **weak and skinny.** But **caring staff** and an unlikely friendship with a **sheep called Millie** bring her back to health!

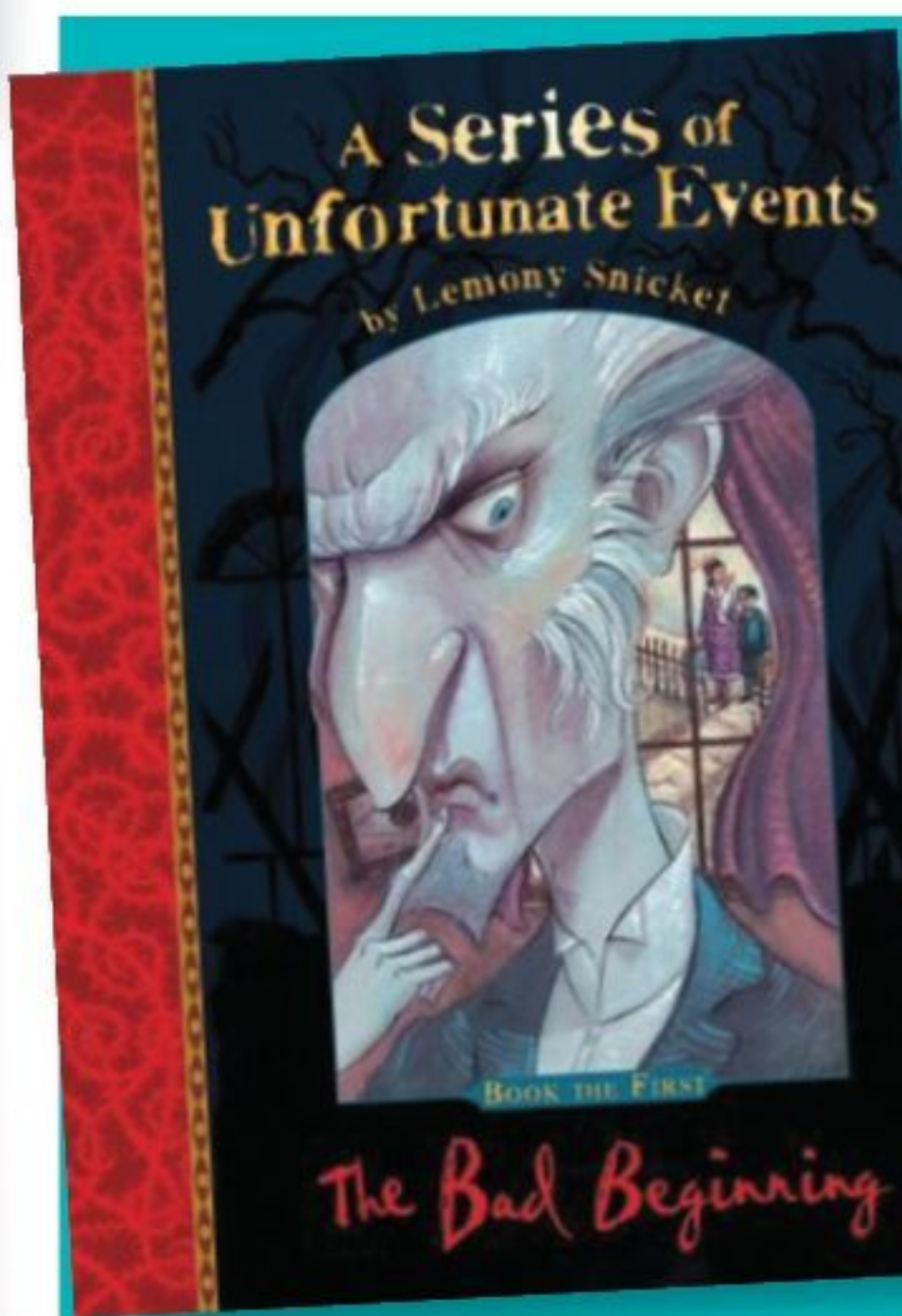


Maia, 10

The Land of Roar Jenny McLachlan

Eleven-year-old **Arthur** finds a map of an **imaginary land** called **Roar** that he and his twin, **Rose**, drew when they were little – a place they discovered by climbing through the **fold-up bed** in their **grandad's attic.** But when **Grandad** goes missing, they realise **Roar** may actually be **real**, and they set out with **Win**, a **wizard-ninja**, to rescue him.

I think anyone who likes **fantasy** and **adventure** will adore this book!



A Series of Unfortunate Events – The Bad Beginning Lemony Snicket

As you can probably guess from the **title**, this book is very **depressing...** but it has a **creative, interesting** and **complex plot.** It's about **three orphans** trying to escape from **evil Count Olaf** as he attempts to get his hands on their enormous **fortune.** He goes to **gruesome measures** to get what he wants.

What I love about this **series of books** is the **unbreakable friendship** of the children. This story makes me feel so **grateful** for my family!



Joie, 12

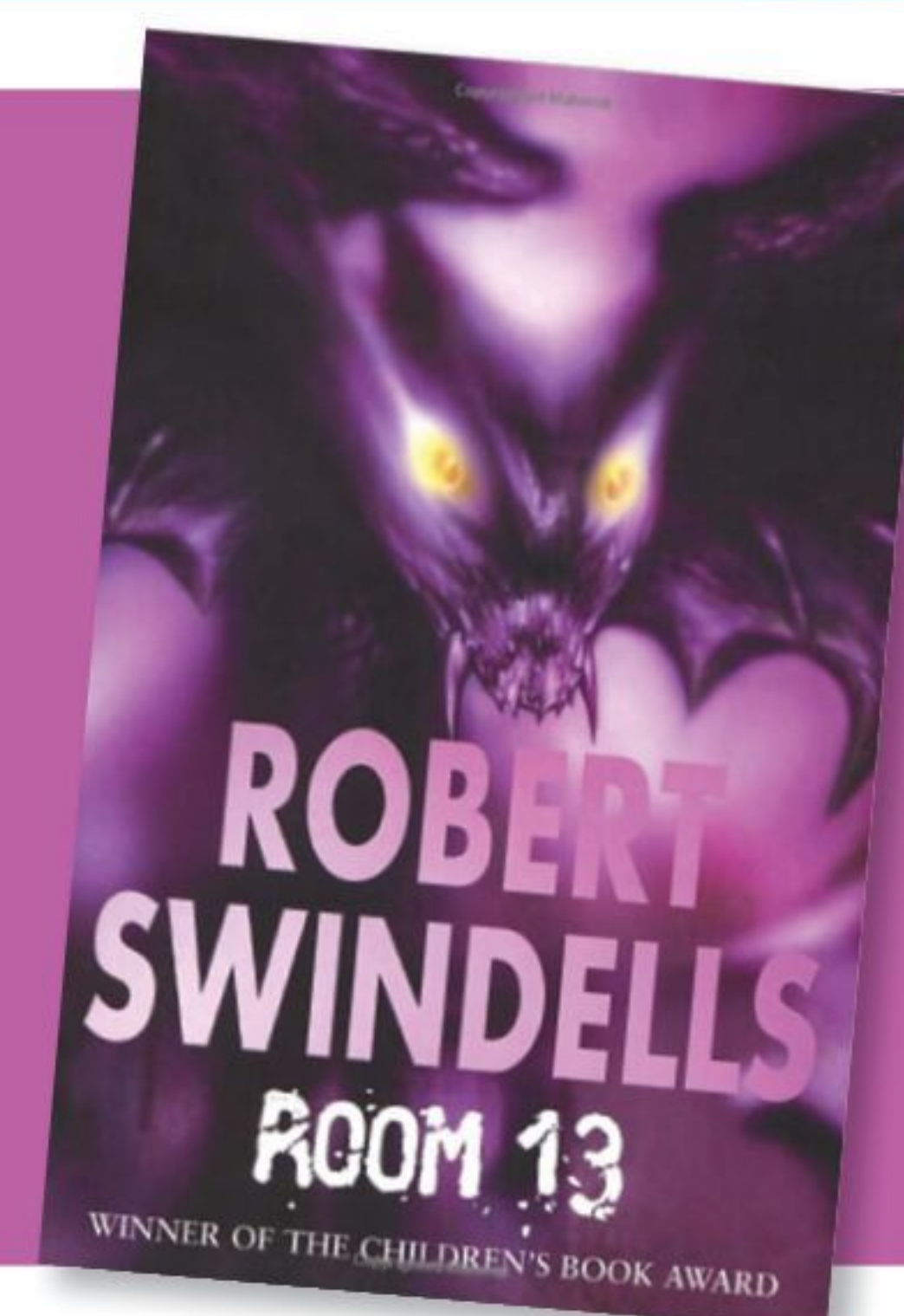
Room 13 Robert Swindells

There is no **room 13** in the **Crows Nest Hotel.** Or is there? When the **clock strikes midnight**, **Fliiss** and her **school friends** find something **peculiar** – the **room appears** and they go on a **wild adventure** trying to save their friend **Ellie-May Sunderland**, with the help of a **scary old lady.**

I enjoyed this **spooky tale!**



Khadija, 11



SERIES OF THE MONTH



The Questioners series

Meet the **creative, curious** and **inventive kids** of **Miss Greer's second-grade class** as they use their passion for all things **STEM** to solve a **series of fun-filled problems** in school and out. How can **science-mad Ada** recover **Rosie's uncle Ned** when his **helium-filled pantaloons** send him into the sky? And how will **future president Sofia** make the **class election fair?**

WIN! Five winners will scoop these **four books** in **The Questioners series!** For your chance to win, go to natgeokids.com and answer this question...

Q Pantaloons are a type of what clothing? a) Shirt b) Socks c) Trousers

THE

BIG PICTURE

NAT GEO KIDS'
image of the month



Hatch of the day



This cool close-up photo shows **teeny tiny California two-spot octopuses hatching** from their **egg sacs**.

As they emerge, the babies, known as **paralarvae**, still have **egg yolks** attached to their mouths (that's what those **white blobs** are!). They'll **feed on the yolks for a few days** before beginning to hunt – eventually the **3-mm** babies will grow to around **half a metre in length**.

Taken by **Pichaya Lertvilai** from the **University of California, San Diego**, the incredible image was overall runner-up of the **British Ecological Society's** annual photo competition, **Capturing Ecology**.

● Check out all the winning pics at britishecologicalsociety.org



On the trail of

GHOST CATS



Snow leopards can change direction mid-leap by rebounding off ravine walls while they're chasing prey.

These cats hunt every 8-10 days, eating their prey over several days.

ST TS S

National Geographic reporters head to the freezing Himalayas to track hard-to-find snow leopards...



A female snow leopard rests on a steep, rocky cliff

A male snow leopard checks out his territory from a mountainside



An old **snow leopard** sweeps his **thick, spotted tail** and looks over his **frozen home** high in the **mountains of India**. He lies on an **icy ledge** overlooking a deep canyon as we watch him through **binoculars**. Three wild **mountain goats**, called **ibex**, appear on the rim of the canyon about **90m** away from the cat.

The snow leopard lifts his head, **catches their scent** in the air, and slowly begins to slink up the cliff. It's hard to follow him, even with the binoculars. The cat's **white-and-grey fur** with **black spots** blends in among the **canyon's rocks, shadows** and **patches of snow**. He seems to **vanish** and reappear like a **ghost**. "He wants to **get above** the ibexes to **chase them** to the **edge of the cliff**," whispers **Prasenjeet Yadav**, a **National Geographic Photographer and Explorer** who's been tracking and studying the beautiful cats for the last two years.

After about **20 minutes**, the cat has **crept close** to the ibex and is **just about to leap**. But then a **sharp whistle breaks the silence** and the **ibex suddenly sprint away**. "That's their **warning call**," Prasenjeet says. "One of them must've **smelled** the leopard."

The big cat doesn't bother chasing them. Instead, he descends the mountain and disappears. "You are very lucky," Prasenjeet says. "You **saw a snow leopard on your very first day**. Some people *never* see them."

HIDING IN PLAIN SIGHT

It's **February 2020**, and we've travelled to the ancient **Himalayan village** of **Kibber**, in India's **Spiti Valley**, in search of these mysterious animals – nicknamed '**ghost cats**' because they're so difficult to find. The long journey we've made is definitely *not* suitable for people who are **afraid of heights**. The village is only accessible by a **zigzagging, narrow road** carved into steep mountains. And because we're here in winter, when the **snow leopards follow their prey into lower parts of the mountains**, much of the road is covered in **snow** and **ice**. Over the next few weeks, we trek more than **50km**, descending into **canyons, trudging up snowy passes**, and **climbing onto icy cliffs** as we try to **photograph the cats** and learn more about how they live.

The **exact number** of snow leopards in the Spiti Valley is a **mystery**. In fact, **counting them** is practically **impossible**. Their **range** extends across **12 Central Asian nations** in some of the **harshest environments for humans**. **Freezing temperatures** and the **mountainous terrain** prevent most scientists from studying these **endangered cats** up close.

Two six-month-old cubs find protection in the rocky cliffs



Turn over to continue the big-cat adventure...

DIGITAL FOOTPRINTS

“Scientists have only been able to study a **tiny amount** of snow leopard habitat,” says **Charu Mishra**, head of the **Snow Leopard Trust**. “So we can’t say for sure how many of these cats there are in the wild.” He estimates that there are between **3,500** and **7,000** snow leopards on the planet.

Researchers *have* been able to study some populations of the cats by **tracking** them with **GPS collars**. Over recent years, experts in **Mongolia**, a country in Asia, put satellite collars on **32 snow leopards** and learned a lot about the cats’ movements in the **Tost Mountains** of the **Gobi Desert**. They discovered that an **adult male** there needs roughly **207km²** of **hunting territory** – that’s an area almost **twice the size of Bristol!**

But snow leopards live in **different types of terrain**, and the **amount of territory they need** depends on many factors, including the kind of **prey available for them to hunt** and the impact **humans** might have on their lives.

These big cats face **lots of threats**. In

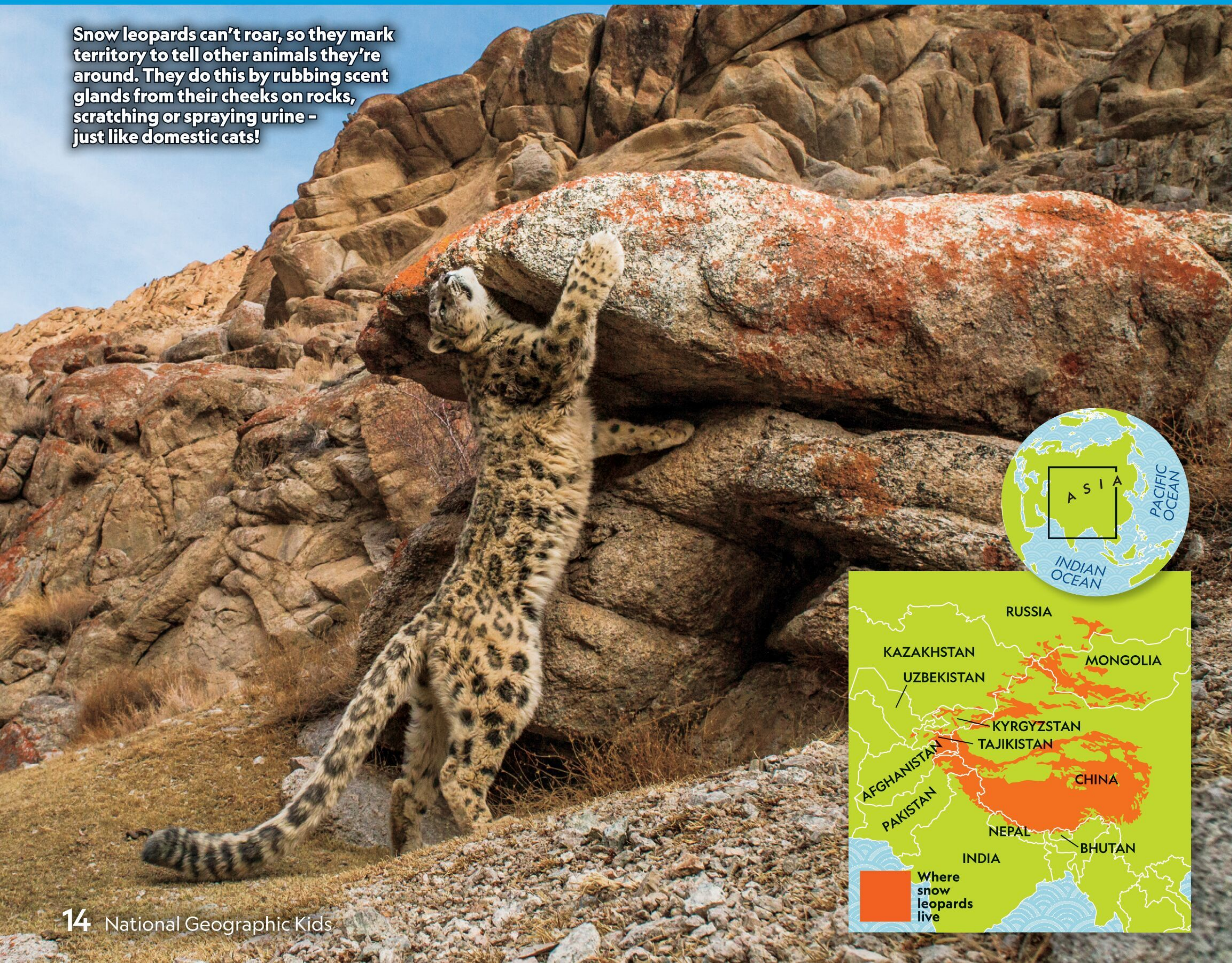


If prey like this ibex become scarce, snow leopards might hunt local people’s livestock

some places, **poachers hunt them** to sell their **fur**. In others, **companies digging for minerals** are **destroying the land** where they live. And many of the snow leopards’ **favourite prey animals** are **disappearing**. Here in Kibber, the local people used to **hate snow leopards** because they would

kill their goats, sheep and donkeys. But the Snow Leopard Trust and other conservation groups have helped the locals develop **new ways to protect their livestock**. Now **tourists pay money** to visit Kibber and see snow leopards, and the **locals help protect the cats**. “We need more of these success stories,” Charu says.

Snow leopards can’t roar, so they mark territory to tell other animals they’re around. They do this by rubbing scent glands from their cheeks on rocks, scratching or spraying urine – just like domestic cats!



Two ten-month-old
cubs sit with their mum

Most
big cats have
yellowish eyes,
but snow leopards'
are grey, blue or
light green.

These
wild cats can
chase prey
at up to
64kmph.



Snow leopard
mothers line their
dens with fur to
keep their
cubs comfy.

A camera trap captures an old male snow leopard that's well known to locals



in piles of rocks near where the cats like to hunt, and they go off with a **flash** when their **motion sensors** are triggered. Prasenjeet is hoping to have captured a picture of a **female and her three cubs**. "Getting **four snow leopards** in one picture would make me very happy," he says.

After a long trek we finally reach the **rocky ledge** where the cameras are hidden. "This is like a snow leopard **highway**," Prasenjeet says, explaining how the cats use the ledges to travel between the **high pastures** where their **prey come to graze**.

Soon our guide **Namgyal** finds **recent tracks**, including a small one that might have been made by a **cub**. Prasenjeet spots a **fresh urine stain**, where a cat has marked its territory. Snow leopards have *definitely* wandered past the cameras recently.

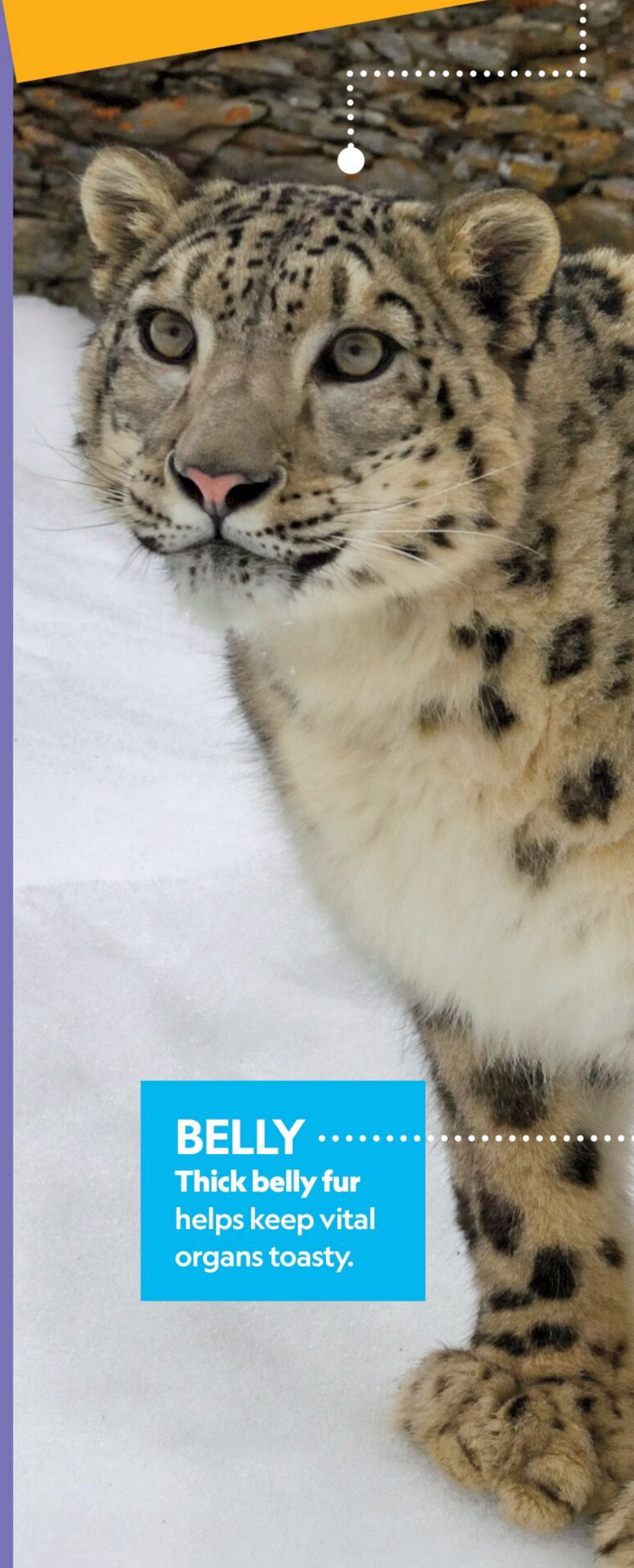
But when Prasenjeet begins to check the cameras, our hopes are dashed. One of the traps' **batteries has died** – a common problem in the extreme cold. Another's **flash has stopped working**. The last camera has taken images, but only of a curious **fox** and a flock of **birds**.

We're bitterly disappointed. "The snow leopards love to torment me," Prasenjeet jokes wryly, adding that a cub had once **peed on his camera!** "But the **good news** is we know the **snow leopards are here.**"

And sure enough, after we return home, Prasenjeet sends us a message. Namgyal had gone back to check the camera traps and one of the memory cards contained **video** of the **mother and her three cubs**. It's brilliant news – a **new generation** of snow leopards will soon be stalking ibex in the Himalayas...

Built for extremes

Check out how a **snow leopard's body** is perfectly adapted for its **snowy, sub-zero mountain habitat...**



CAUGHT ON CAMERA

In order to **protect** snow leopards, conservationists need to **learn more about them**. Which is why Prasenjeet has been in Kibber for two years, helping scientists track the big cats using **camera traps**.

On our last day we set off on a hike to check **three** of these camera traps. The **waterproof cameras** have been **hidden**

An injured male snow leopard quenches its thirst from a stream



BELLY

Thick belly fur helps keep vital organs toasty.

PAWS

Large paws act like snowshoes and help keep the cats from sinking into the white stuff.

HEAD

Snow leopards live **high in the mountains**, where the air doesn't have as much **oxygen**. To help them **breathe**, **large nostrils** and **skulls shaped like domes** enable the cats to take in **more oxygen** with each breath.

COAT

Underneath their **long outer fur** is a **dense, woolly underfur** which traps air near the skin like a **jumper** under a coat.

Snow leopards have been spotted at elevations up to **5,500m**.

A snow leopard's **dark spots** - called **rosettes** - plus its **tan or grey coat** help it **blend in** with the rocky habitat.

TAIL

Like a **tightrope walker's pole**, a snow leopard's **tail** helps with **balance** as it **turns during leaps**.

The snow leopard has the **longest tail** (proportionately) of any big cat. It can wrap the tail around its body like a **warm scarf**.

HIND LEGS

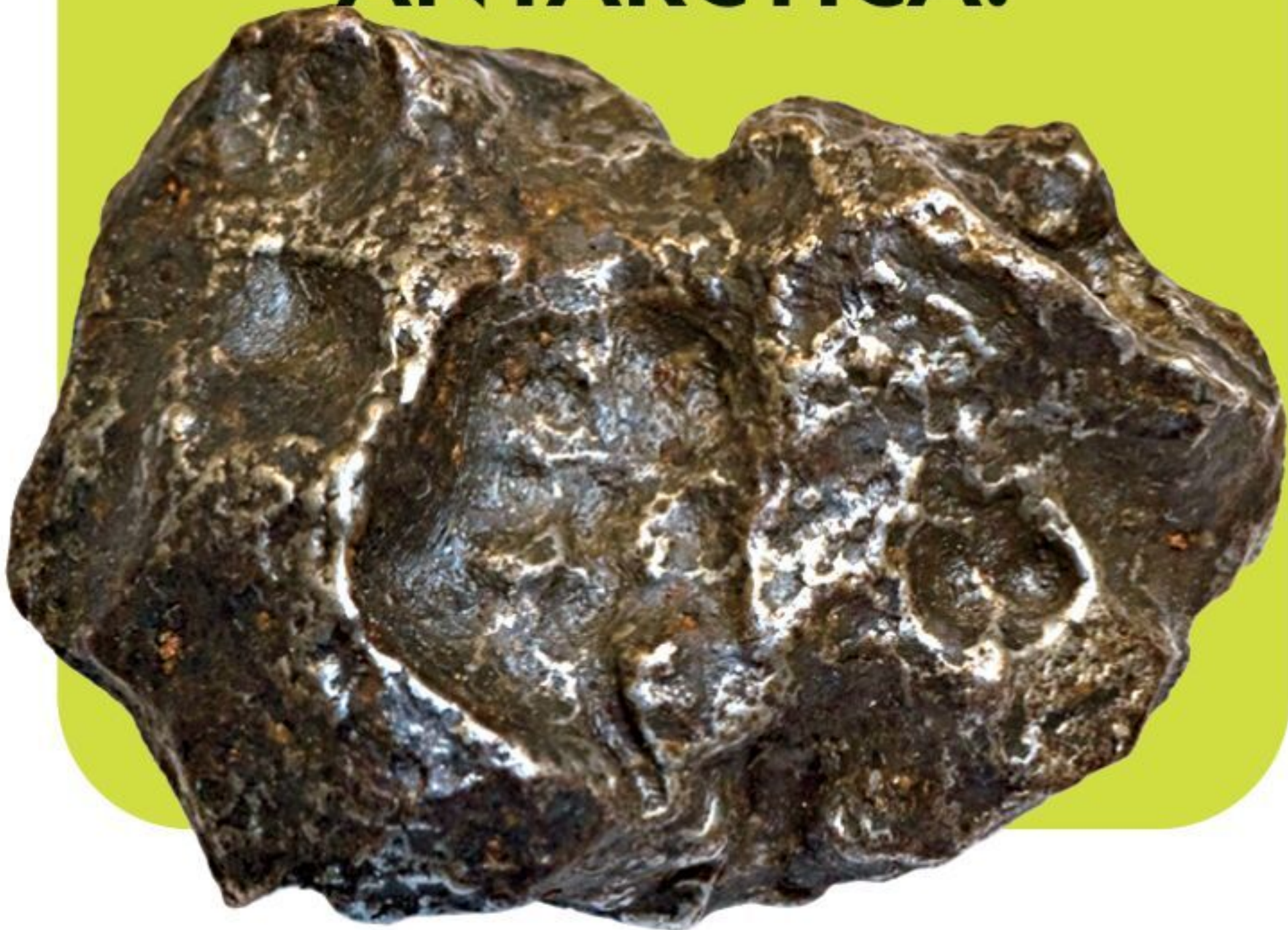
Extra-long back legs help give them **powerful jumps** and **acceleration** to **chase prey** in **steep, snowy mountains**. Snow leopards can leap across **15-m gorges** and jump **1.8m** into the air with **no running start**.

SNOW LEOPARD PAW PRINTS



1 DURING THE LAST ICE AGE **11,500 YEARS AGO**, one-third of Earth's surface was covered in ice. Today, ice covers only a 10th.

2 **90 PERCENT** OF ALL RECOVERED **METEORITES** COME FROM ANTARCTICA.



3 Icebergs are formed when huge chunks of ice break off glaciers and drift out to sea. **THEY ARE MOSTLY MADE OF FRESHWATER.**

4 **Snowflakes** GET SMALLER AS THE TEMPERATURE DROPS.

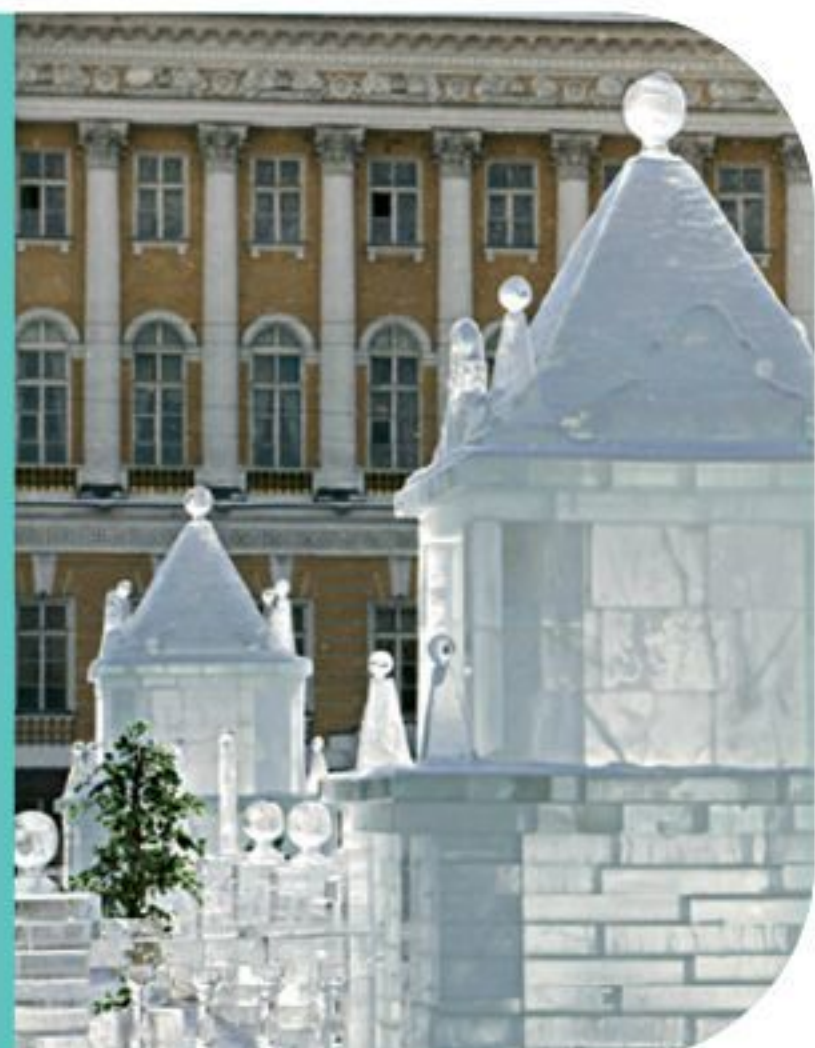
5 HAWAII'S MAUNA KEA VOLCANO
IT'S POSSIBLE TO **SNOW SKI** ON VOLCANOES IN **HAWAII**.



COOO

THINGS TO MAKE YOU

6 An **ICE PALACE** built in **St. Petersburg, Russia**, was an exact replica of one built by Empress Anna Ivanovna some 200 years ago.



7 **SNOW CONES** (ice with flavouring) sold during the US Great Depression in the 1930s were called 'hard times sundaes' because they were cheap to make.



8 **DON'T TRY THIS AT HOME:** If someone was silly enough to touch their tongue to a metal pole on a below-freezing day, **IT COULD GET STUCK THERE.**



9 THE ARCTIC-DWELLING **WOLVERINE** HAS PAWS LIKE **SNOWSHOES** SO IT CAN WALK ON TOP OF DEEP SNOW.



10 ON MARS, WATER BOILS AT **10 DEGREES ABOVE FREEZING.**

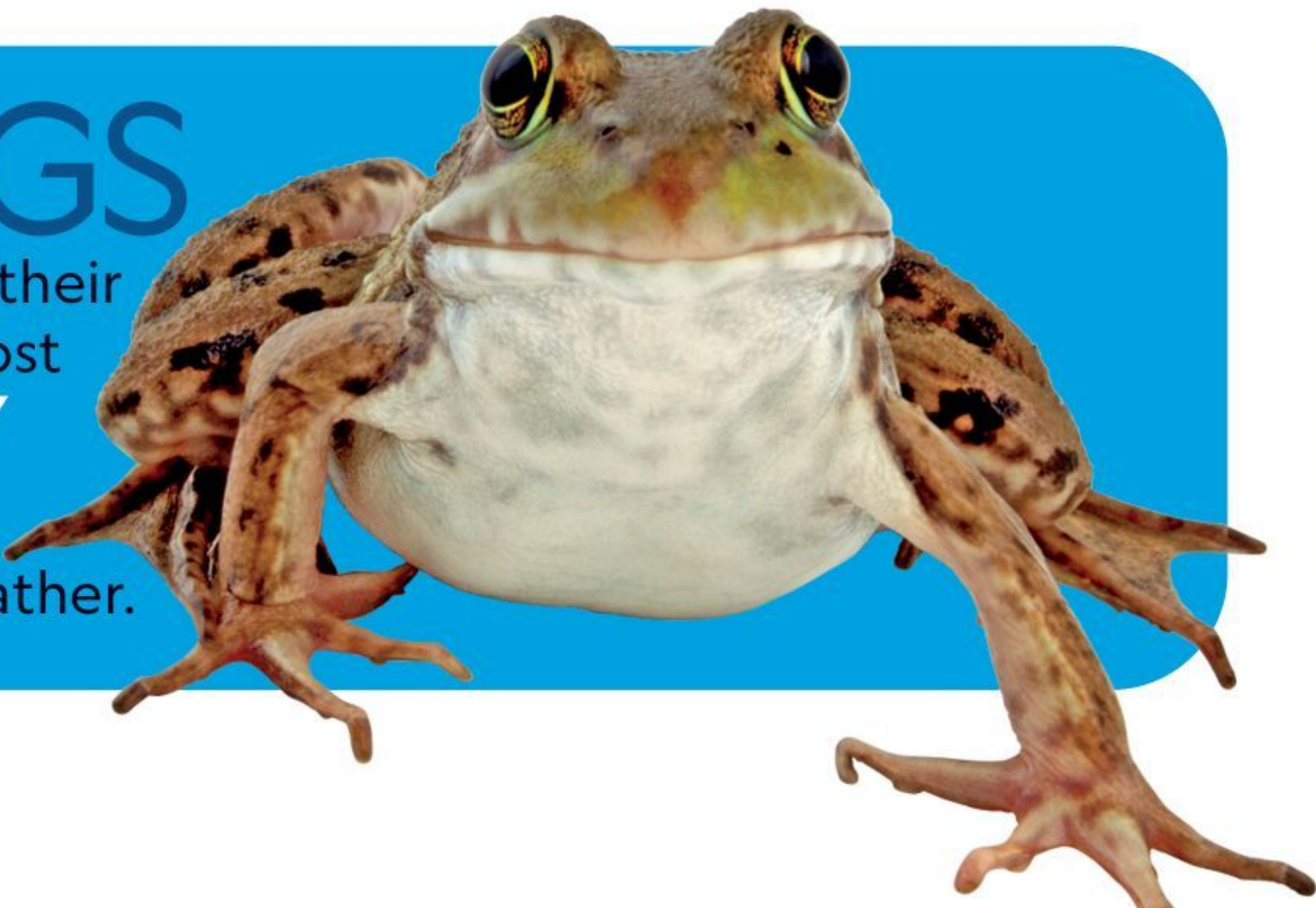


11 **REINDEER** can travel more than **1,300km** during their annual migration in the Arctic.

12 AN ARCTIC **FOX** HAS A **BUSHY TAIL** THAT CURLS AROUND ITS BODY FOR WARMTH.



13 **WOOD FROGS** have antifreeze-like chemicals in their bodies that allow them to almost **FREEZE COMPLETELY IN THE WINTER** and then thaw out in warmer weather.




14 THE SENSATION OF **BRAIN FREEZE** HAS NOTHING TO DO WITH YOUR BRAIN. IT OCCURS WHEN THE **BLOOD VESSELS IN YOUR HEAD SWELL.**

Marcellemens / Shutterstock (2); Gen Productions / Shutterstock (3); Thank You / Shutterstock (Snowflake, 4); Robert Madden / National Geographic Image Collection (5); Semen Lixodeev / Shutterstock (6); Jennie Book / Shutterstock (7); Joey Boylan / iStockphoto (8); Igor Shpilnenok / NPL / Minden Pictures (9); Steven Colling / Shutterstock (10); Dmitrynd / Getty Images (12); Carolina K. Smith / Shutterstock (13)

15 Each year, a hotel in Sweden is rebuilt from a mixture of ice and snow. **EVEN THE CHAIRS, TABLES, AND BEDS ARE MADE OF ICE!**



16 **SIBERIA** GETS SO COLD THAT YOUR BREATH CAN TURN TO **ICE** IN MIDAIR.



17 **ICE POPS** were invented accidentally in 1905 when an 11-year-old left a cup of fizzy drink with a stick in it outside on a cold night.



18 **POLAR BEARS** CLEAN THEMSELVES by **RUBBING THEIR BODIES** on the ARCTIC SNOW.

19 A MAN SET A RECORD BY BALANCING **120 FROZEN WAFFLES** IN HIS HANDS.




20 On average, **51 CM** of **SNOW** equals **2.5 CM** of **WATER**.

CHILLOUT


21 **18,000** years ago, Britain was covered in ice, which stretched as far south as **LONDON**.

22 A **BERGY BIT** is a small **ICEBERG** that's about the size of a house. A **GROWLER** is a chunk of ice less than 5m across.



23 IN SOME PARTS OF **ANTARCTICA**, THE ICE IS **5 KM THICK**.

24 **EMPEROR PENGUINS** can stay **UNDERWATER** for up to **20 MINUTES**.



25 IN THE **ANTARCTIC**, THERE'S A **30-30-30 RULE**: When the temperature is **minus 30°F** and the wind is **30mph**, human skin freezes in **30 seconds**.
(minus 34°C, 48kmph, 30 seconds isn't so catchy!)

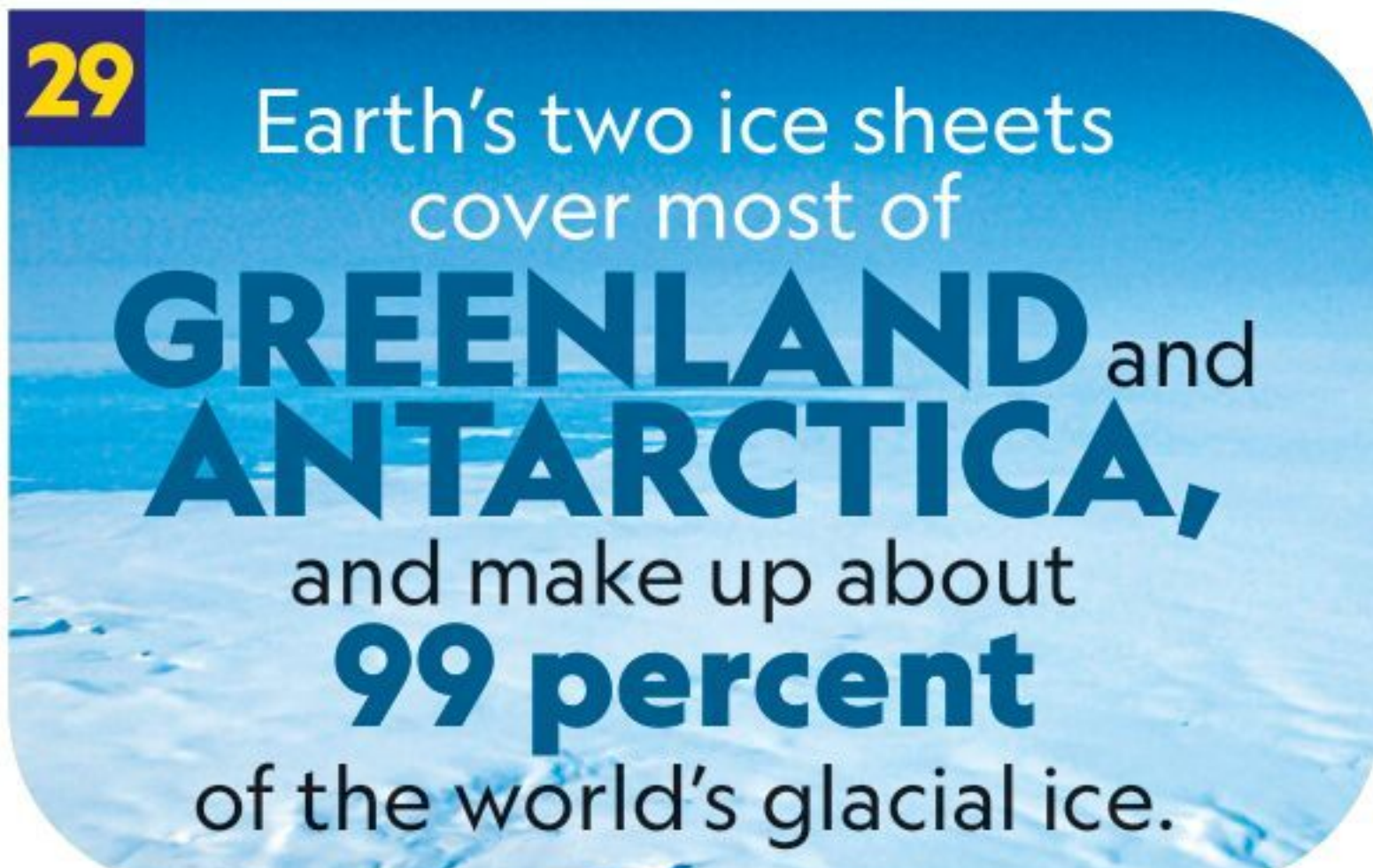
26 WHEN **LIGHTNING** OCCURS WITH A **SNOWSTORM**, IT'S CALLED **THUNDERSNOW**.

27 **ICEBERG LETTUCE** GETS ITS NAME BECAUSE IT USED TO BE SHIPPED COVERED IN ICE.

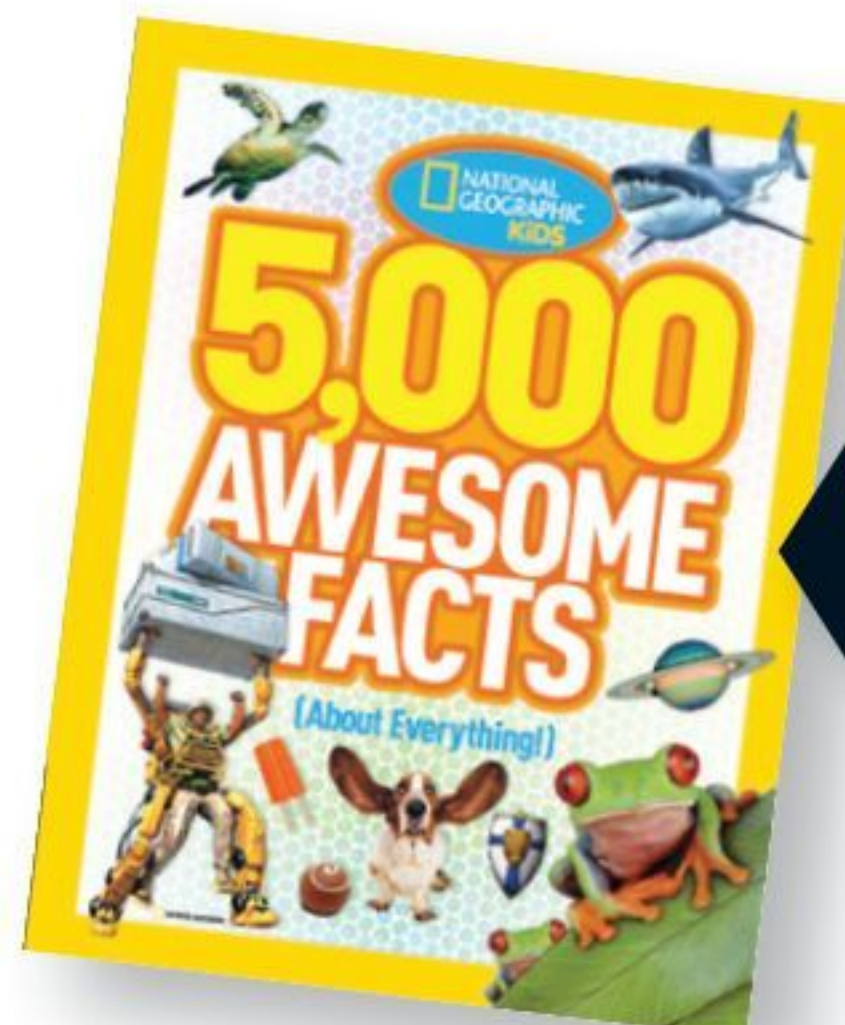


28 The lowest temperature ever recorded on Earth was **minus 98°C** IN ANTARCTICA.

29 Earth's two ice sheets cover most of **GREENLAND** and **ANTARCTICA**, and make up about **99 percent** of the world's glacial ice.



30 Early hockey pucks were made of **FROZEN COW POO**.



CHECK OUT THE BOOK!

Marco Regalia / iStockphoto (15); Tim Ur / Shutterstock (16); Stephen Coburn / Shutterstock (17); Joshua Lewis / Shutterstock (19); Andrzej Gibasiewicz / Shutterstock (22); Ippgutenbergukitd / Getty Images (24); Arttim / Shutterstock (27); Fantuz / Shutterstock (29)

BEHIND THE SCENES

A new show at the National History Museum investigates the link between real-life animals and the beasts of myths, legends and movies! Here's a sneak peek at the exhibits being prepared for display...

GIANT SQUID

Inside this jar is a **giant squid**, found in the **stomach** of a **sperm whale**. The deep-sea **molluscs** are **rarely seen alive**, so most of what we know about them comes from **studying remains** such as these. Encounters with giant squids, which can grow to at least **13m in length**, are thought to be the **most likely explanation** for tales of **sea monsters** such as the **kraken!**

NARWHAL TUSK

The '**unicorn horns**' that were once **traded** across Europe were actually the **tusks** of small **Arctic whales** called **narwhals!** Though called tusks, they're actually **large teeth** which emerge from the front of narwhals' heads, growing up to **3m long**.



INSECT-COLLECTING EQUIPMENT (1800s-1900s)

Tools like these were once used to **collect** and **study** insects. As well as the **net** and **box** for **breeding** and **observing** live creatures, there's a tin of **black treacle** for luring **moths!**



S AT THE MUSEUM!

EXPERTS AT WORK

Cheryl Lynn is one of the many experienced **conservators** who work at the museum, **looking after** and **repairing** objects and specimens – including **Dippy the diplodocus** and **Hope the blue whale**! Here she is preparing a **Colombian lesserblack tarantula** spider for the museum's **Fantastic Beasts** display!



SCIENTIFIC SKETCHBOOK

Before modern **cameras**, what we knew of the natural world came from **drawings**! **Scientific illustrators** travelled the world **painting** the animals and plants they found. This **notebook**, by Welsh artist **Olivia Tonge (1858–1949)**, records a **chameleon** she encountered during her travels in **India** and **Pakistan**.

Turn the page to discover connections between **magical beasts** and **real-life animals**...

MORE FANTASTIC BEASTS

Meet some of the magical creatures from *Harry Potter* and *Fantastic Beasts* – and see how the brilliant animals on *our planet* are more than a match for them!

ERUMPENT

The **Wizards World's Erumpents** (below) do a special **mating dance**. Lots of **real world animals** do **mating dances, too** – such as the **finger-nail-sized male peacock spider** (right), which raises its bright bum in the air and **waves its legs**. This **delicate dance** is a matter of **life and death** – if the female isn't **impressed**, she might **eat him**. Yikes!



The Erumpent's **horn** is used in **Wizards World potions**. Many **real animals** are **hunted for their body parts**, too, which are used in traditional Asian '**medicines**'.

Millions of **pangolins** (left) are killed for their **hard protective scales** and **meat** – despite **no scientific evidence** of their healing properties.



OCCAMY

Occamies can **change size** dramatically to fit any available space. And like the imaginary Occamy, **marine iguanas** (right) can also **expand and shrink!** When their food (**algae and seaweed**) is scarce, these lizards **shrink their bodies** by up to **7cm** – around **20%** of their regular length. This **reduces the amount of food** they need to survive.



NIFFLER

Magical **Nifflers** love **collecting shiny objects**. Here on Earth, **Adélie penguins** (below) prefer **pebbles!** They hoard as many stones as possible, **piling them up to build their nests**. Some even **steal** stones from neighbours – but they run the risk of a sharp peck or a flipper-bash!



MOONCALF

Like the fantastical **Mooncalf**, which can only be seen during the **full moon**, the **okapi** from **Central Africa** is well adapted to **avoiding detection**.

A relative of the **giraffe**, the okapi's **stripy markings** (right) **camouflage** it in its dense, shadowy forest home. Only discovered by Western scientists in the **1900s**, it's still **difficult to study** today, despite its large size.



Fantastic Beasts: The Wonder of Nature is on at **London's Natural History Museum** until **August 2021**, featuring all these objects and many **interactive exhibits**. For prices, booking and further info, head to **nhm.ac.uk**

Weird but true!

Check out these
outrageous facts...

Don't miss
the *Weird But
True* TV show
on Disney+
now!



TREES WITH
SQUARE
TRUNKS
GROW IN
PANAMA.



Some lobsters are
BRIGHT BLUE.

Koalas

in southern Australia
tend to have

thicker fur

than koalas in
the north.



Post is delivered by **mule**
to a village in Arizona, USA.

The Frisbee
was originally
named the

Pluto Platter.



A MATCHBOX-SIZED
LUMP OF

GOLD

CAN BE FLATTENED
INTO A SHEET
AS BIG AS A

**TENNIS
COURT.**

Watermelons

are

**92 percent
water.**



Tokyo, a city in Japan,
has roughly the
same population as



all of Canada.

From £4
a month

DO YOU KNOW SOMEONE WHO LOVES DOLPHINS?

Adopt a dolphin today and you'll be helping to give the amazing dolphins of Scotland's Moray Firth a future

The survival of these intelligent and charismatic dolphins is threatened. This population is just under 200 individuals. Your support will help protect these individuals from threats including oil and gas exploration and production, chemical pollution and fishing. You will receive lots of stuff

including a personalised certificate with a picture of your adoption dolphin, a set of fun stickers and a colourful WDC badge. We'll keep you up-to-date on their daily lives through a great quarterly magazine SPLASH!, a monthly e-newsletter and you'll receive an email birthday and Christmas card.



YOU CAN ADOPT:



RAINBOW

Rainbow is a friendly sociable female dolphin. She is a brilliant teacher to her sons, showing them how to catch the largest salmon!

OR



CHARLIE

Charlie is a boisterous teenage dolphin. He enjoys racing around with his buddies Lunar and Flake, getting into all sorts of mischief.

GOLDENDOODLE





Picture © Getty Images UK.

 NATIONAL
GEOGRAPHIC
KIDS

**NORWEGIAN
FOREST CAT**




Picture © Getty Images UK.

 NATIONAL
GEOGRAPHIC
KIDS

**JAPANESE
MACAQUES**

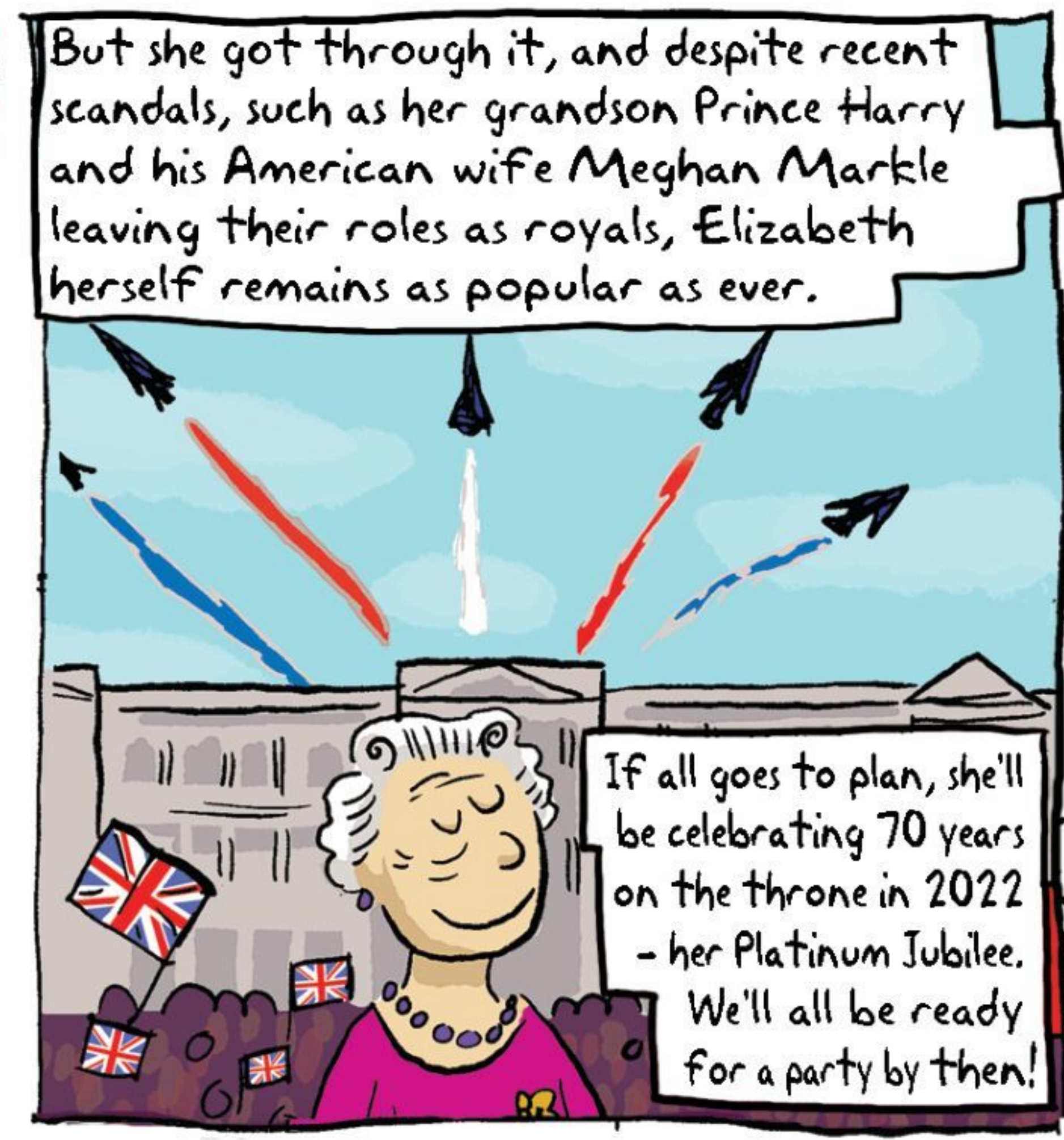
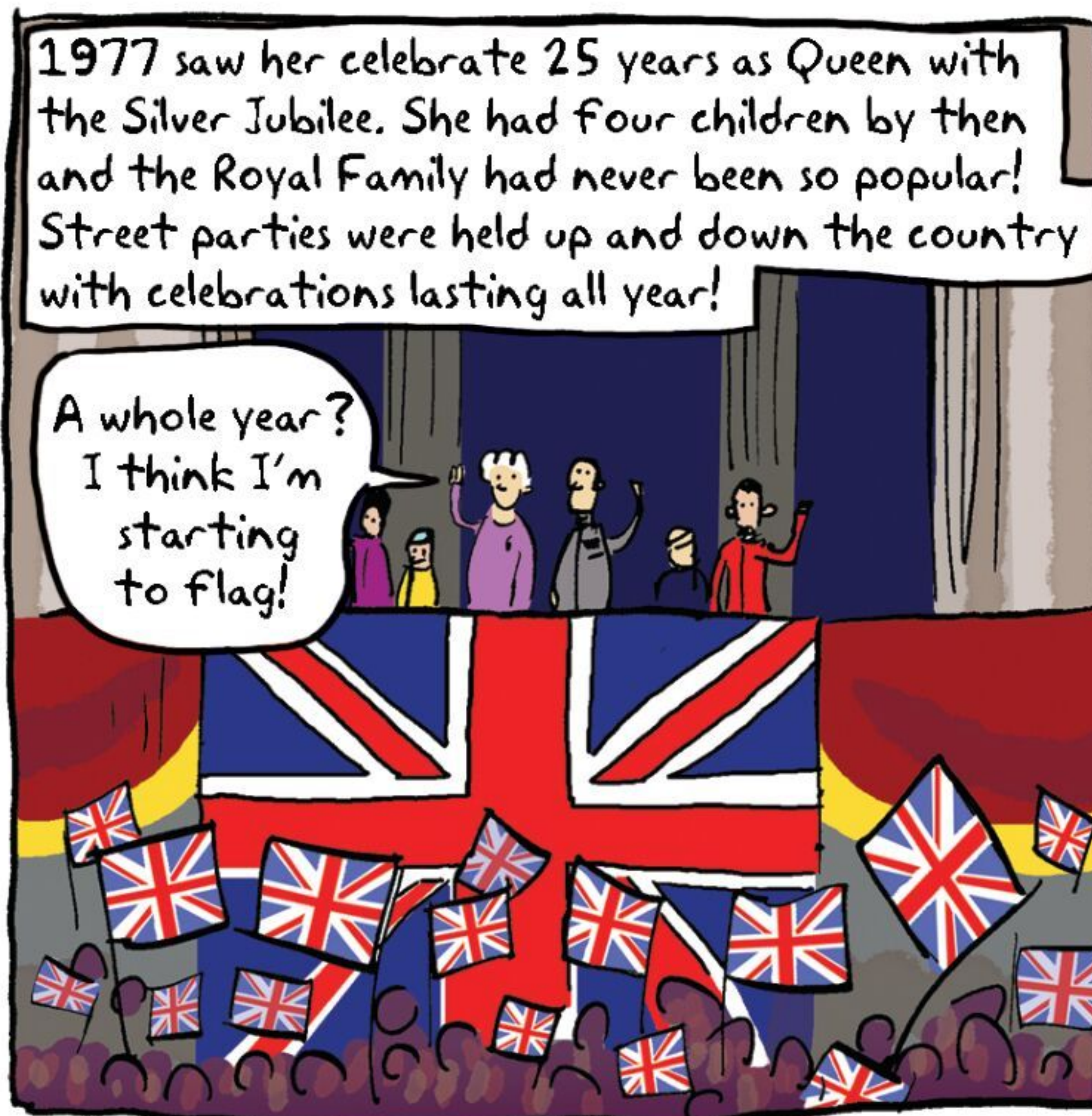
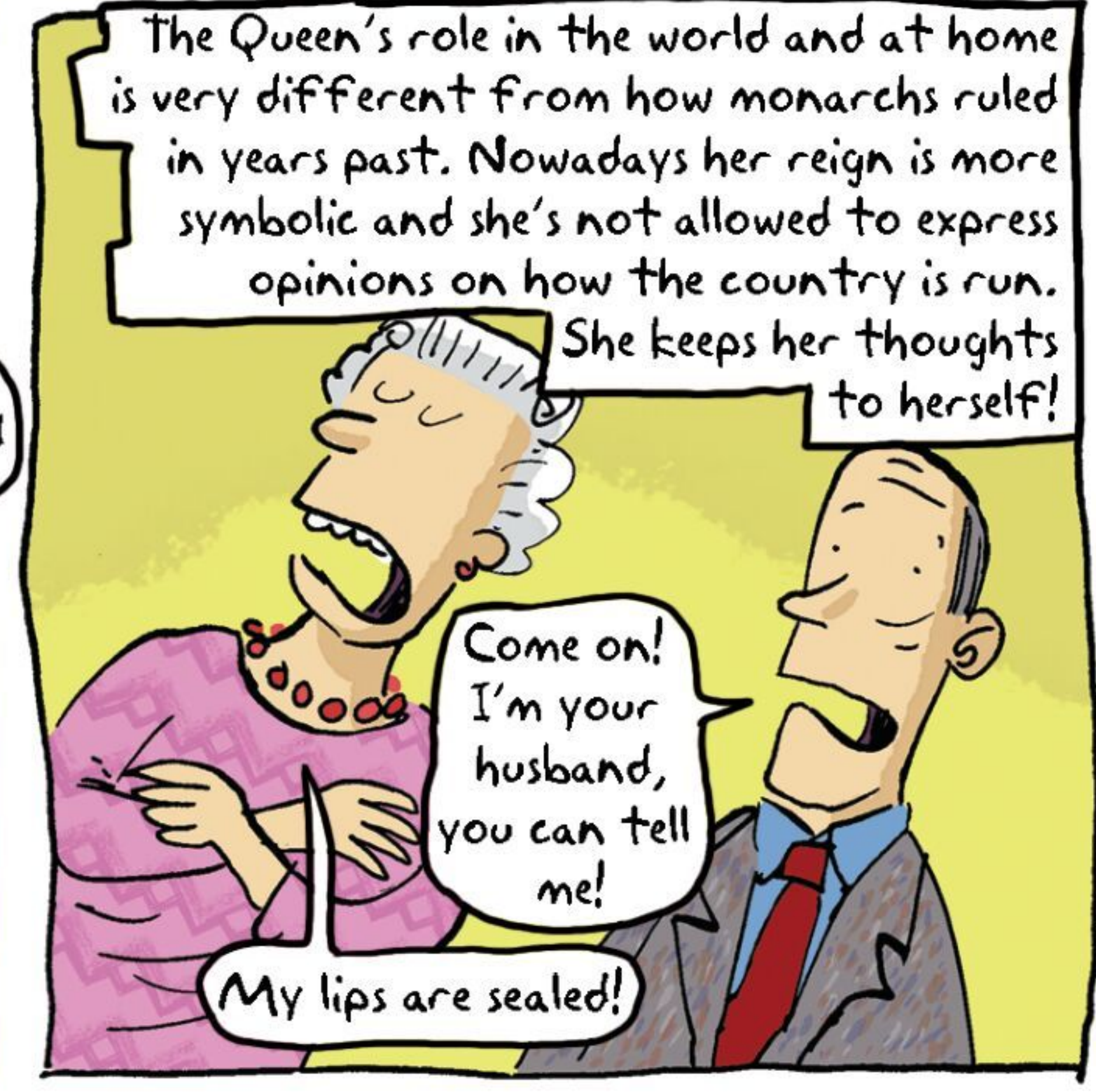
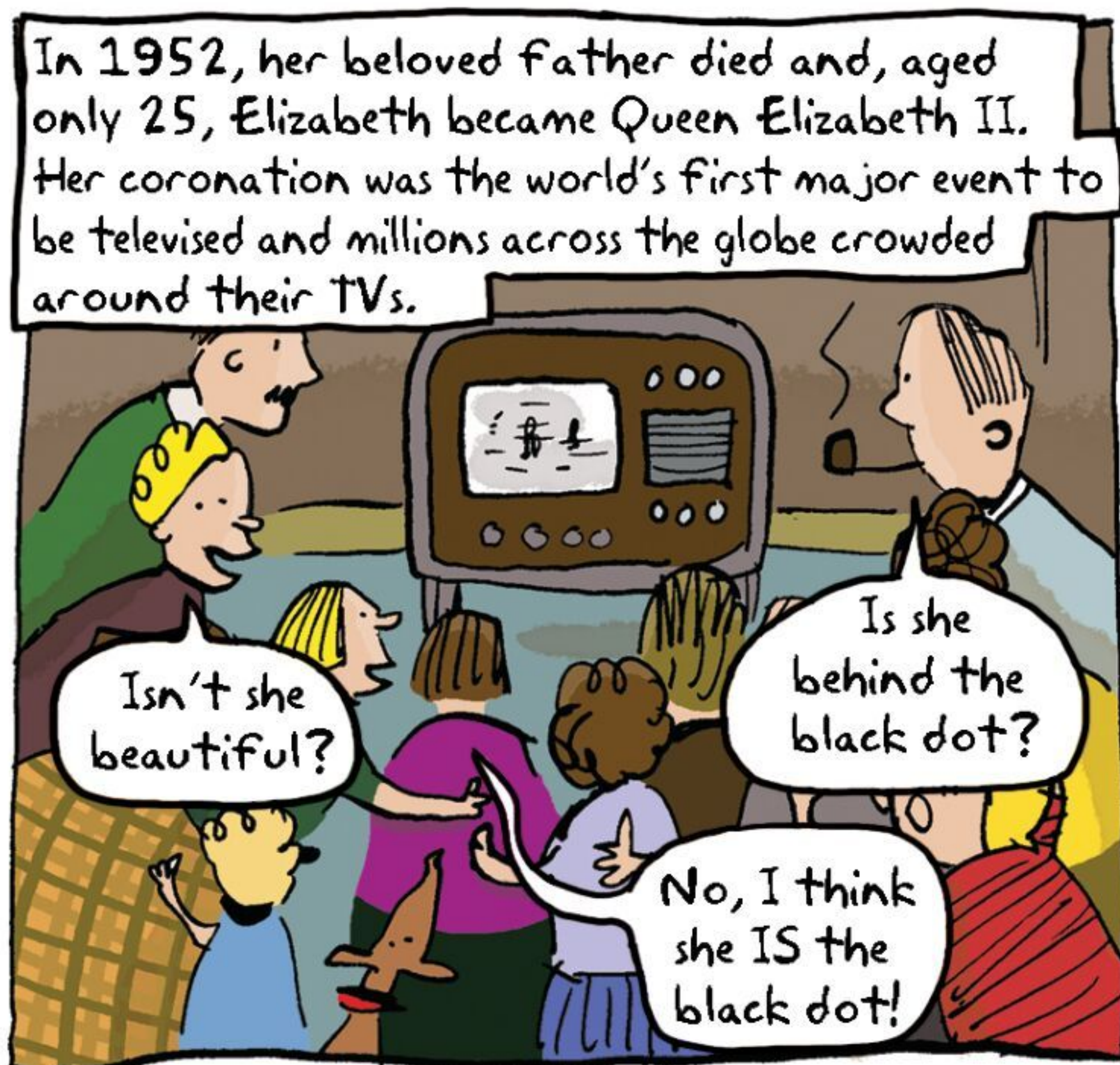
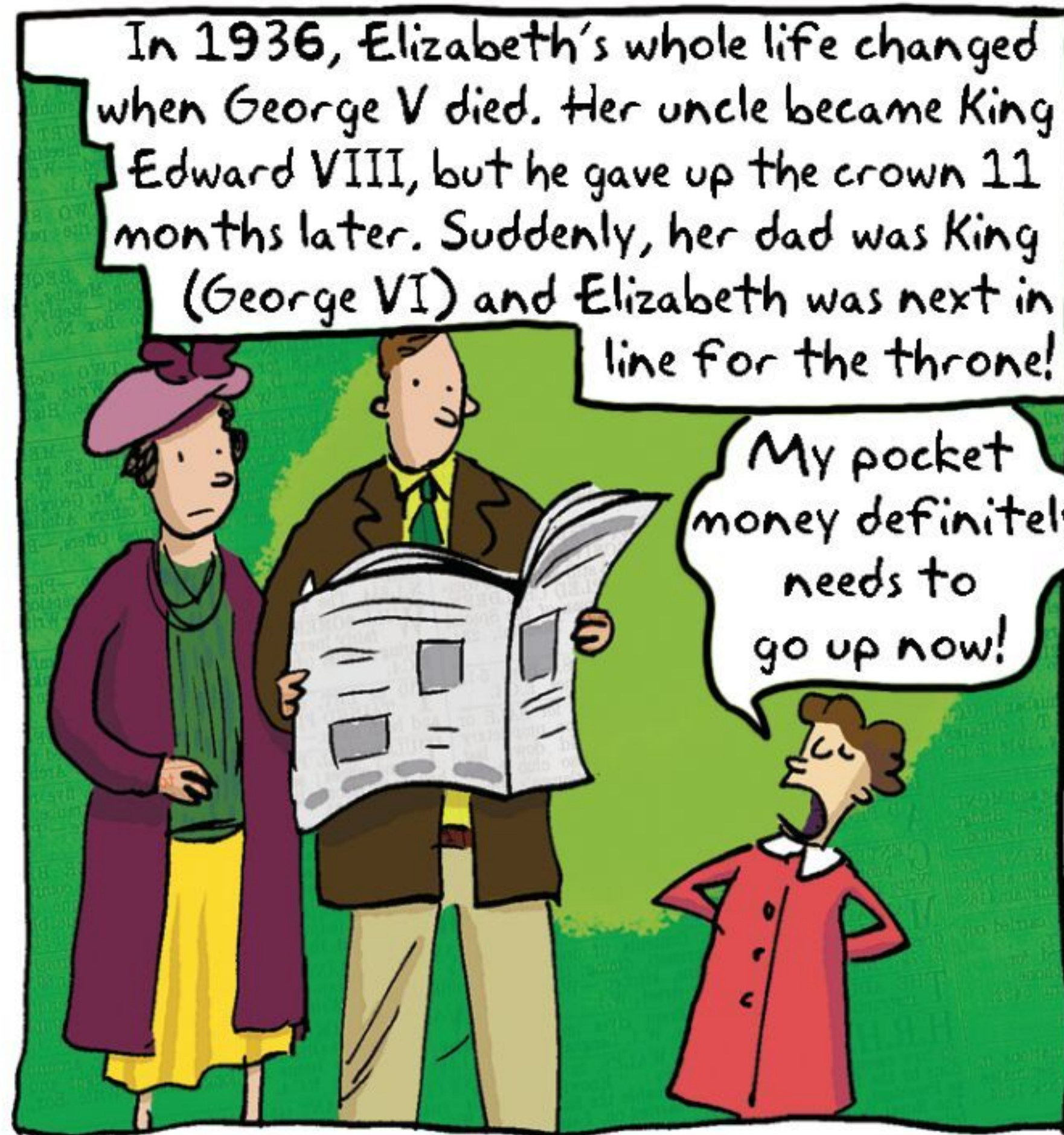
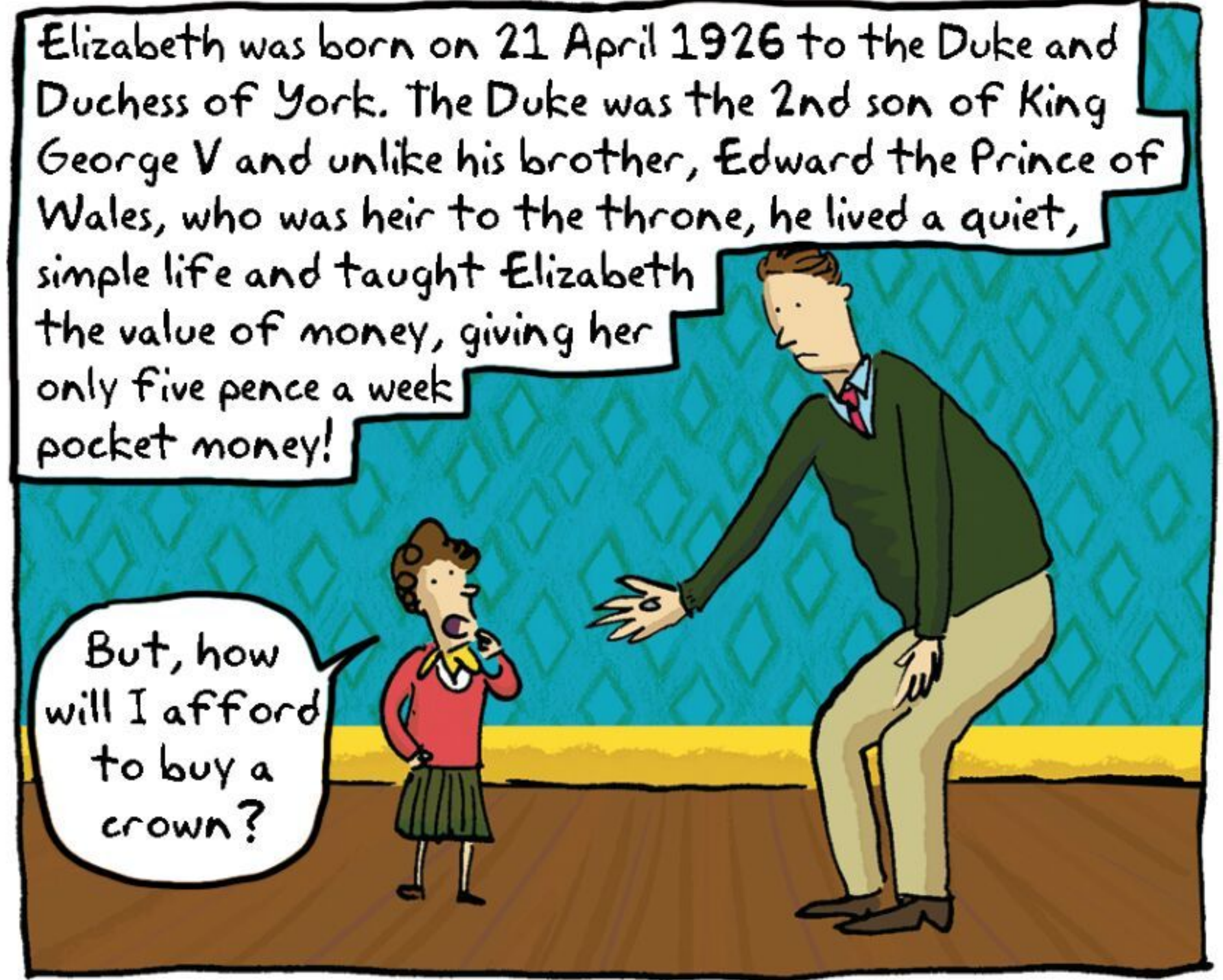


 NATIONAL
GEOGRAPHIC
KIDS

WALRUS

THE LIFE OF ELIZABETH II IN UNDER A MINUTE

This month, NG KiDS' time-travelling mouse, Max, takes a trip to London to meet Queen Elizabeth II...



1 YOU ARE WHAT YOU EAT

This bright **Spanish shawl nudibranch** can be spotted **crawling on corals** or **fluttering through open water** near the rocky shores of **Mexico's Baja California**. The flashy **finger-length sea slug** gets its **beautiful colour** by **recycling pigments** from its favourite food – tiny plantlike **jellyfish** known as **hydroids**.



Unlike molluscs such as oysters, clams and snails, nudibranchs don't have shells

NEON NUDIBRANCHS

CHECK OUT THESE EIGHT MESMERISING MOLLUSCS, ALSO KNOWN AS 'SEA SLUGS'...

Nudibranchs navigate using tentacles (also called horns) that can smell and taste

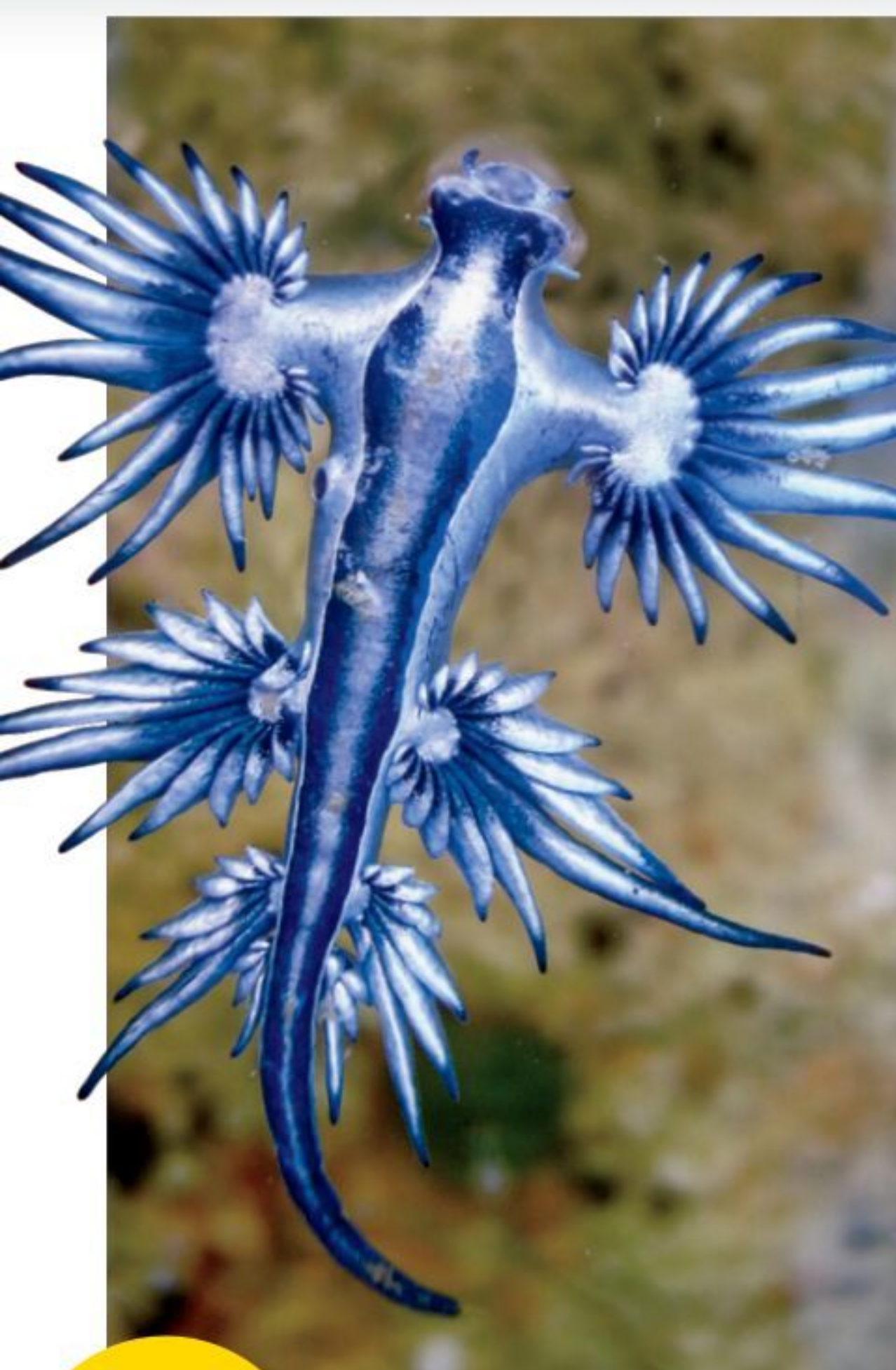
2 PATTERN PLAY



Nembrotha kubaryana's striking 'costume' of **fluorescent stripes** and **polka dots** acts as a **warning sign** for **potential predators** – when threatened, it secretes a **toxic mucus** from its **skin!** Distinguished by its **often-orange edging**, this slug lives in **tropical western Pacific** and **Indian Ocean** waters and can grow up to **12cm long**.



CHECK
OUT
THE
BOOK!



4 SUCH A SHOW-OFF

The beautiful plumes of *Cyerce nigricans* are coated with a **toxic mucus** that **tastes nasty** to fish. Like a **lizard's tail**, these plumes can also **break off** when this sea slug feels threatened – they **wriggle** to **distract predators** while the bite-sized nudibranch makes its **getaway**. Clever!

5 DANCE FOR THE FRILL OF IT



Spanish dancers – which are the **largest** member of the sea slug family – can be found **swirling their 'skirts'** in the tropical waters of the **western Pacific** and **Indian Oceans**. They grow up to **45cm long**, crawling or swimming in search of tasty **sea sponges**.

3 DEADLY SURFER

The **thumbnail-sized blue dragon** cruises tropical oceans, using a **stomach bubble** to **float** on the surface while it searches for its favourite (and **much larger**) snack – the **Portuguese man-o-war**. But watch out! The dragon stores the **poison it ingests from its prey** in the **tips of its frilly blue 'fingers'**.



6 FUZZY FACE

Nembrotha cristata looks like it's ready for someone to **scratch** behind its little **black ears**! Except those aren't actually ears – they're **rhinophores**, used for **smelling**. The **green lips** are really its **tongue**, and the little **green wings** are **stinging gills**. On second thoughts, forget about the ear scratching...



7 DRESSED FOR DEFENCE

Don't mess with this super sea slug! Found in shallow reefs off the coast of **Indonesia** and the **Philippines** in **South East Asia**, the finger-length *Chromodoris annae*'s colourful markings make it look like it's giving us the eyeball. And its **vivid blue skin** is threatening – it contains **toxic chemicals** which deter fish from taking a bite.

8 SPOTS, HORNS AND WINGS

Its **frilly pigtails**, **moustache** and **daisy-shaped spots** make *Bornella anguilla* look more like a cartoon character than a sea slug. This **little-finger-length** nudibranch, named for its **eel-like way of swimming** (anguilla means 'eel' in **Latin**), lives in the tropical waters of the **western Pacific** and **Indian Oceans**.



FIT FOR A QUEEN

Get the scoop on India's most famous building – the Taj Mahal...



This stunning structure might look like a **fancy home** for **important royalty**. But **no one** has **ever lived here** – it's actually a **tomb**. So who is buried inside the majestic mausoleum? Read on to find out!

MEET THE MAKER

For over **200 years**, the **Mughal Empire** ruled over parts of what is today **India, Pakistan, Afghanistan** and **Nepal**. To become **emperor**, a **royal male** had to **prove himself** to be the best choice before being named as heir – but the family could still **change its mind**. That's what happened to **Shah Jahan**, a third-born son who had been named heir but later **fell out of favour**. When his **father died**, Shah Jahan returned home in **1628** to **reclaim the throne**. And he put his **rivals** – including his **brother** and a few **nephews** – to **death!**

The new emperor loved **architecture** and **art**, and he adored his **second wife, Mumtaz Mahal**. (Emperors at this time usually had many spouses to **gain power** through their families, and Shah Jahan had **three wives**.)

Mumtaz Mahal travelled with him everywhere, even on **military campaigns**. The couple were married



Portraits of Mumtaz Mahal (left) and Shah Jahan



for nearly **20 years** before Mumtaz Mahal died in **1631**.

Legend says that after his wife's death, Shah Jahan's **black hair turned white** from grief. He decided to build a tomb that would be a **grand monument** for his lost love.

"Nothing had ever been built like this to **honour a queen** before," says **Mughal art historian Mehreen Chida-Razvi**.

BEST BUILDING

It took nearly **20 years** for the massive, **17-hectare complex** to be completed. About **20,000 craftsmen** baked **bricks** made of **mud** to form the building's structure. They then covered them in **white**

marble for the tomb and **red sandstone** for nearby buildings. Artisans covered the inside of the mausoleum with designs made from over **40 types of semi-precious gems** such as **jade, agate** and **lapis-lazuli** (see pic, right). Sometimes **60 pieces of stone** were used to create a single **flower**.

Calligraphers hand-carved poems and scripture on the walls and columns. The head calligrapher was allowed to sign his name to the work – "the **insignificant being, Amanat Khan Shirazi**."

Mumtaz Mahal's

Inlaid pieces of jade and coral were used to decorate the inside



The Taj Mahal is perfectly symmetrical.

Mumtaz Mahal means 'chosen one of the palace.'

One of the famous 'Seven Wonders of the World', the Taj Mahal is visited by more than seven million tourists each year.

The Taj Mahal is believed to have been the inspiration for Aladdin's palace.

Workers clean the Taj Mahal using clay and distilled water

SOLVING A MYSTERY

Every **few years**, the Taj Mahal gets a **mud bath** (above) to remove **yellow-brown stains** from the **white marble**. But the cause of these stains was a mystery until environmental scientist **Mike Bergin** decided to investigate.

In 2012, Mike placed **marble tiles** on the monument for **two months**, and then used a special **high-powered microscope** to look at the **stained tiles**. He found **tiny particles of pollution** from **cars** and the **burning of wood, rubbish and dung**. The pollution **absorbed light** instead of **reflecting** it, which created the stain.

As a result, the **Indian government** has restricted the burning of trash and the driving of cars near the monument to help **decrease the pollution**. Let's hope it **improves the health** of local people, too!

sarcophagus (ornate stone coffin) appears to have been placed in a room at the centre of the Taj Mahal. But it's actually a **cenotaph**, a **false tomb** that allows **visitors** to pay their respects without disturbing her actual remains. Her body was buried in a **crypt** underneath.

TOMB TRUTH

"It's likely that Shah Jahan would've built his own tomb nearby," Mehreen says. But in **1657** he fell **ill**. Seizing the chance to become ruler – just like Shah



Jahan had done 30 years before – one of his **sons imprisoned** him in a fort. The former ruler's only comfort was that **he could see the Taj Mahal from a window**.

Shah Jahan **died eight years later**, but his son **didn't honour him with a majestic tomb**. Instead, his body was brought to the Taj Mahal at night and his sarcophagus was **placed** beside his wife's, even though the tomb was built to honour Mumtaz Mahal – and no one else.

Over **350 years later**, people still **marvel** over the beautiful building. And Shah Jahan might be happy that they **continue to honour** his beloved wife.

IN IT TO

WIN IT!

WIN!

SIMON & SCHUSTER BOOK BUNDLE

Get your hands on this **bumper book bundle** that'll keep you entertained for all of 2021!

In *Everdark*, join **Smudge** and **grumpy monkey Bartholomew** as they adventure in a world of **goblins, dragons** and **harpies**. Then travel to a **summer camp** in **China** in *Dragon Mountain*, where **Billy Chan** and fellow campers stumble upon an **age-old secret** – **four powerful warrior dragons**, hidden deep within a nearby **mountain**.

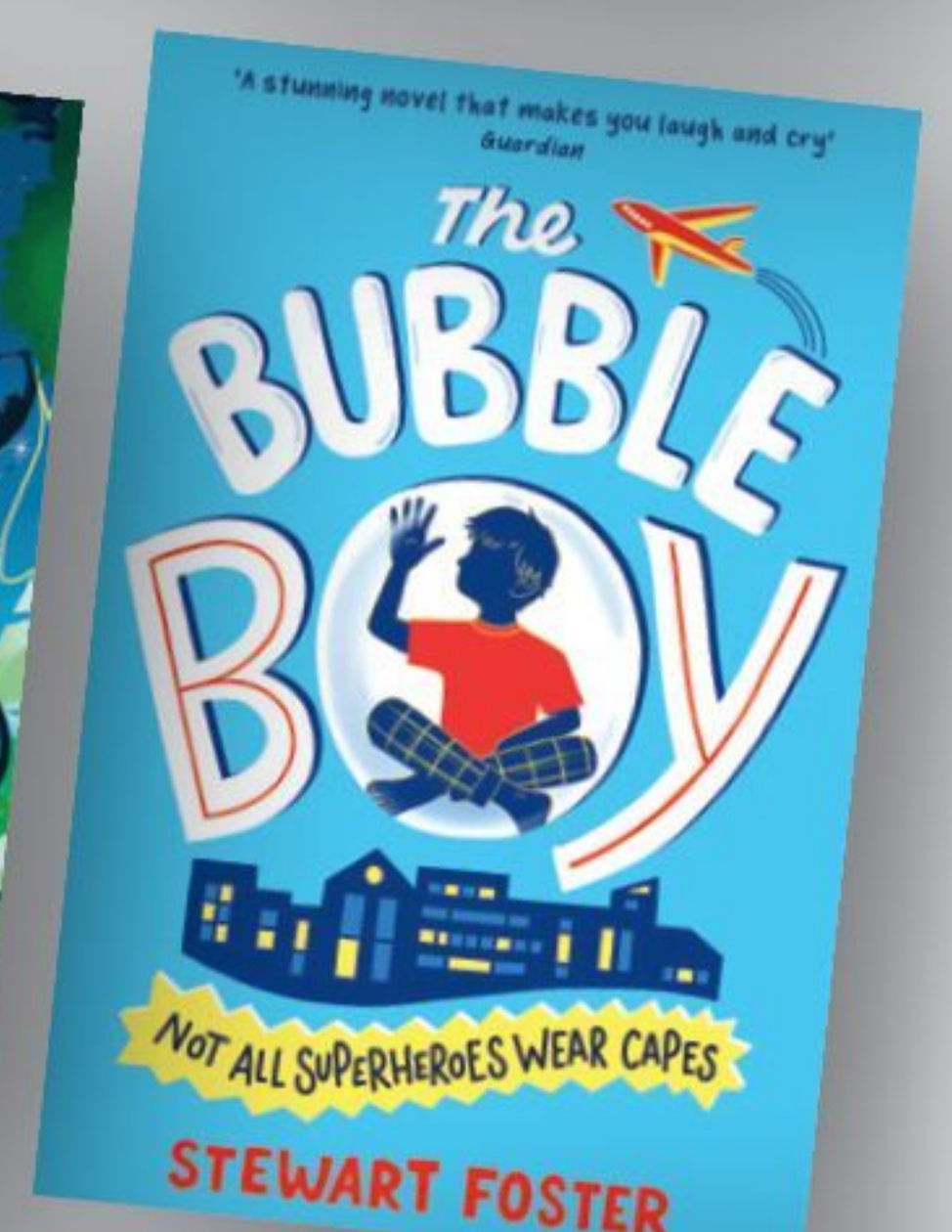
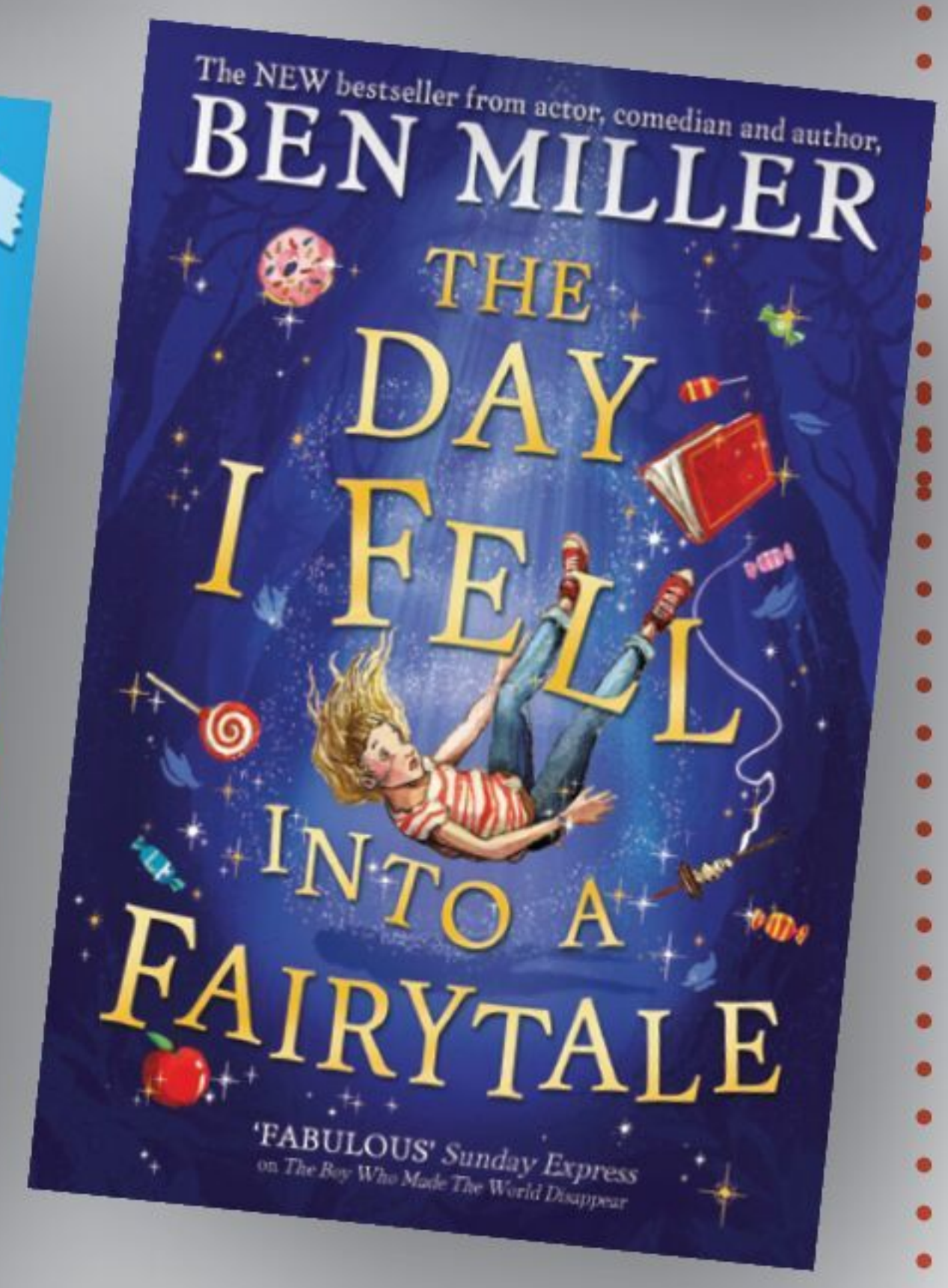
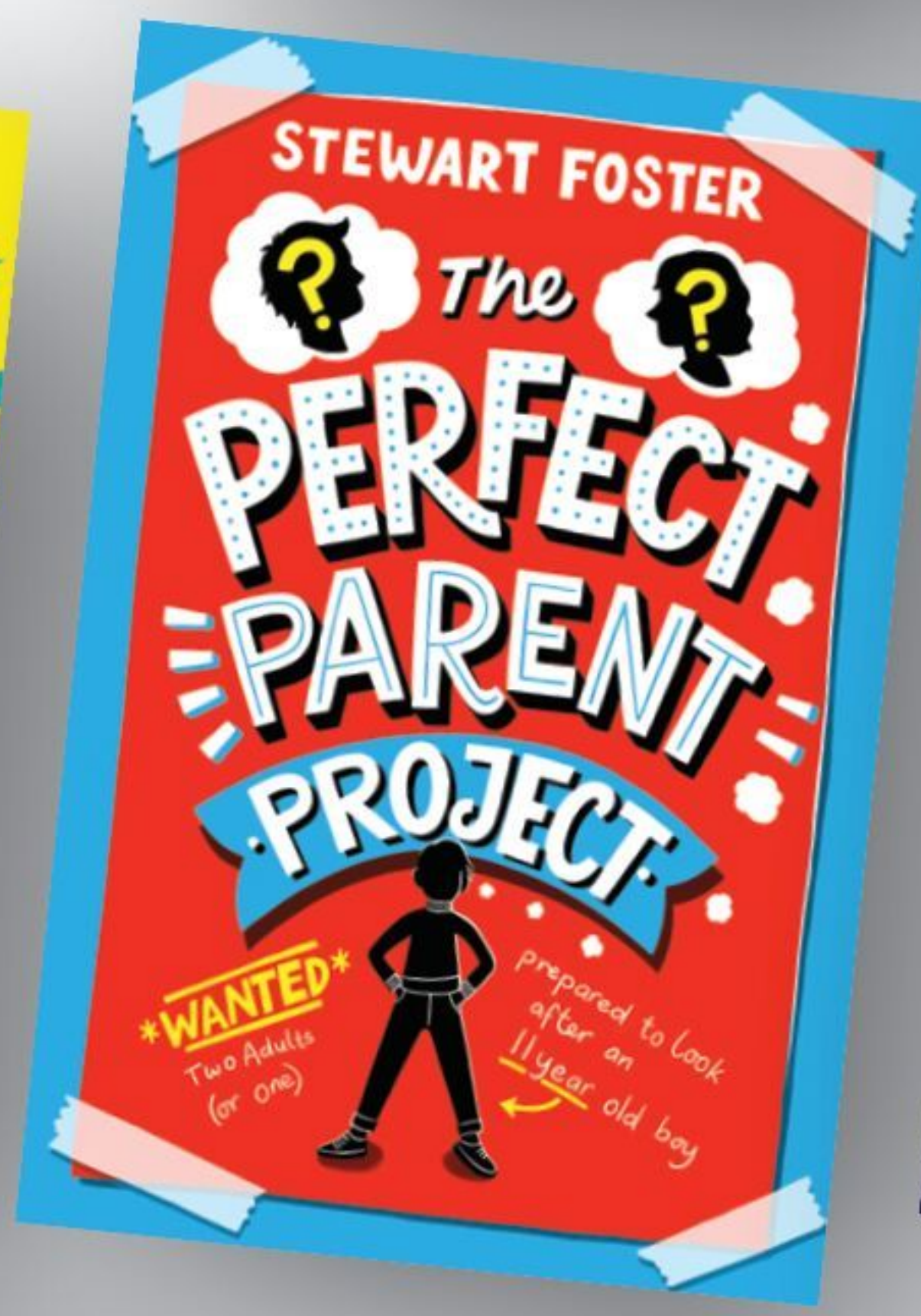
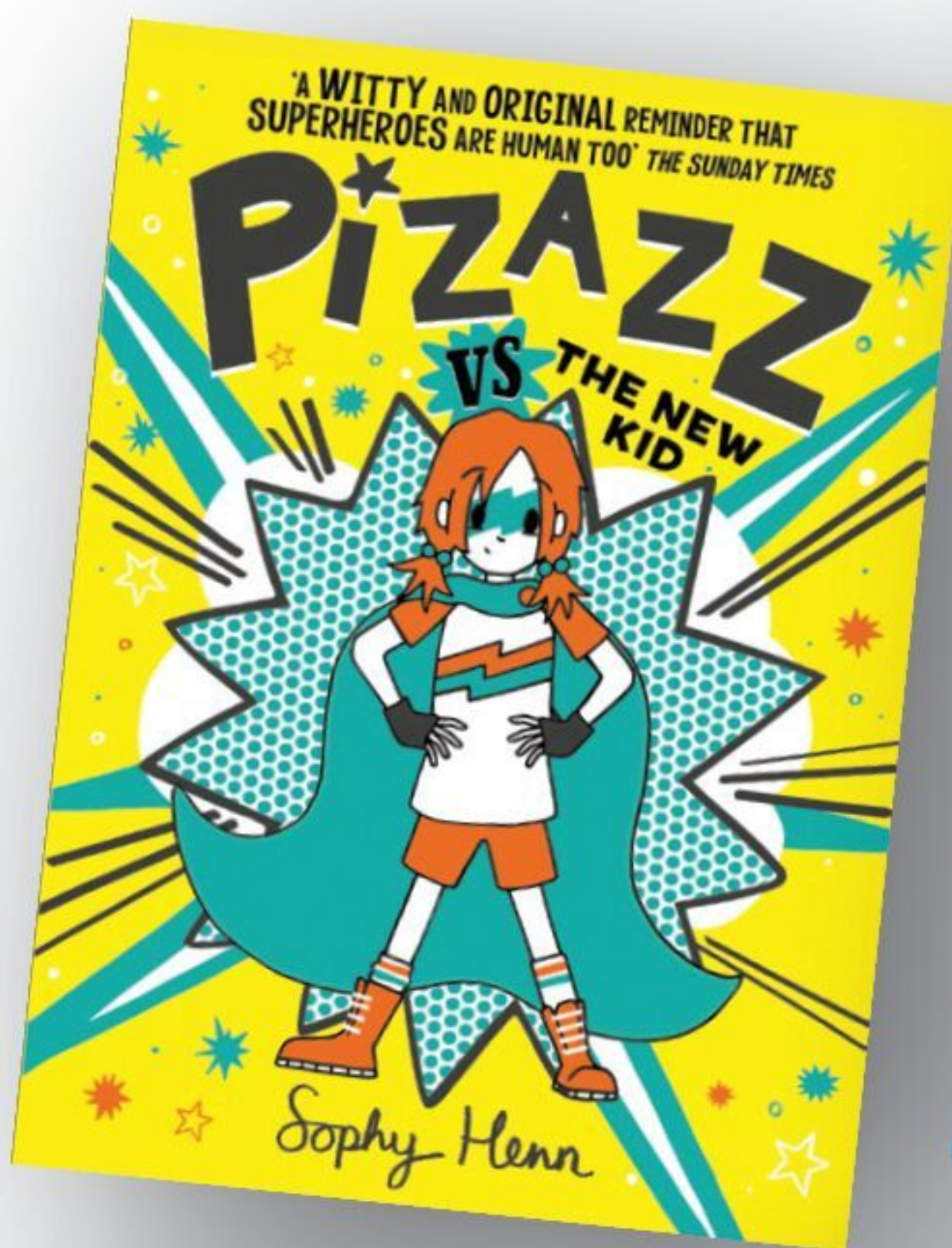
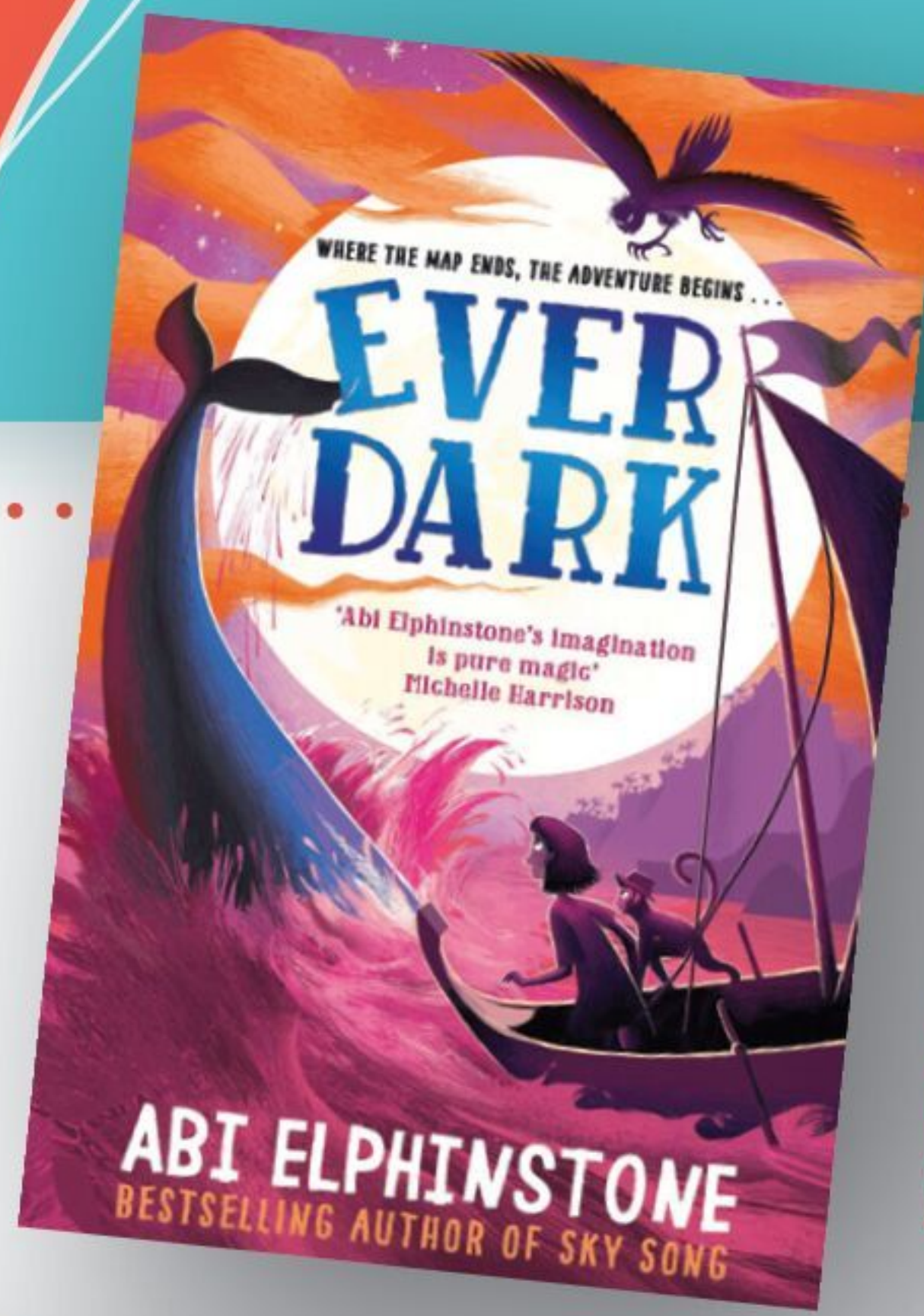
Pizazz vs the New Kid is brimming with **quirky illustrations** and **comic strips**, as **reluctant superhero Pizazz** tries to get used to a new kid at school, while *The Perfect Parent Project* tells the story of **foster kid Sam's** journey to find his **perfect family**.

And in *The Day I Fell Into a Fairytale*, **Lana** discovers a **portal** into a **dark and dangerous fairytale world**. Can she defeat the **evil witch** before it's too late?

Twelve bookworms will win **nine** brilliant books – these **five** plus **four other top titles** – *Pizazz*, *Rumblestar*, *Jungledrop* and *The Bubble Boy*.

● Read more at simonandschuster.co.uk

Q Which of these is the opposite of 'dark'?
a) Gloomy b) Murky c) Bright



WIN!

OSMO LEARNING TECH

Got an iPad? Then make learning more fun with Osmo!

The **Genius Starter Kit** lets you develop your **English, Maths, creativity** and **problem-solving skills** as you **think and play** in the **real world**. Just place your **tablet** in the **Osmo Base** with the **red reflector** over the **camera** and you're good to go. Then watch as your **creations come to life** on your **tablet screen**. Wow!

Go on an exciting **addition-and-subtraction** adventure with **Math Wizard** and the

Magical Workshop (below, right). You'll **brew potions** and use **magic sparkles** on your **spell-binding quests**, adding and subtracting **balloons** to help **dragons fly**.

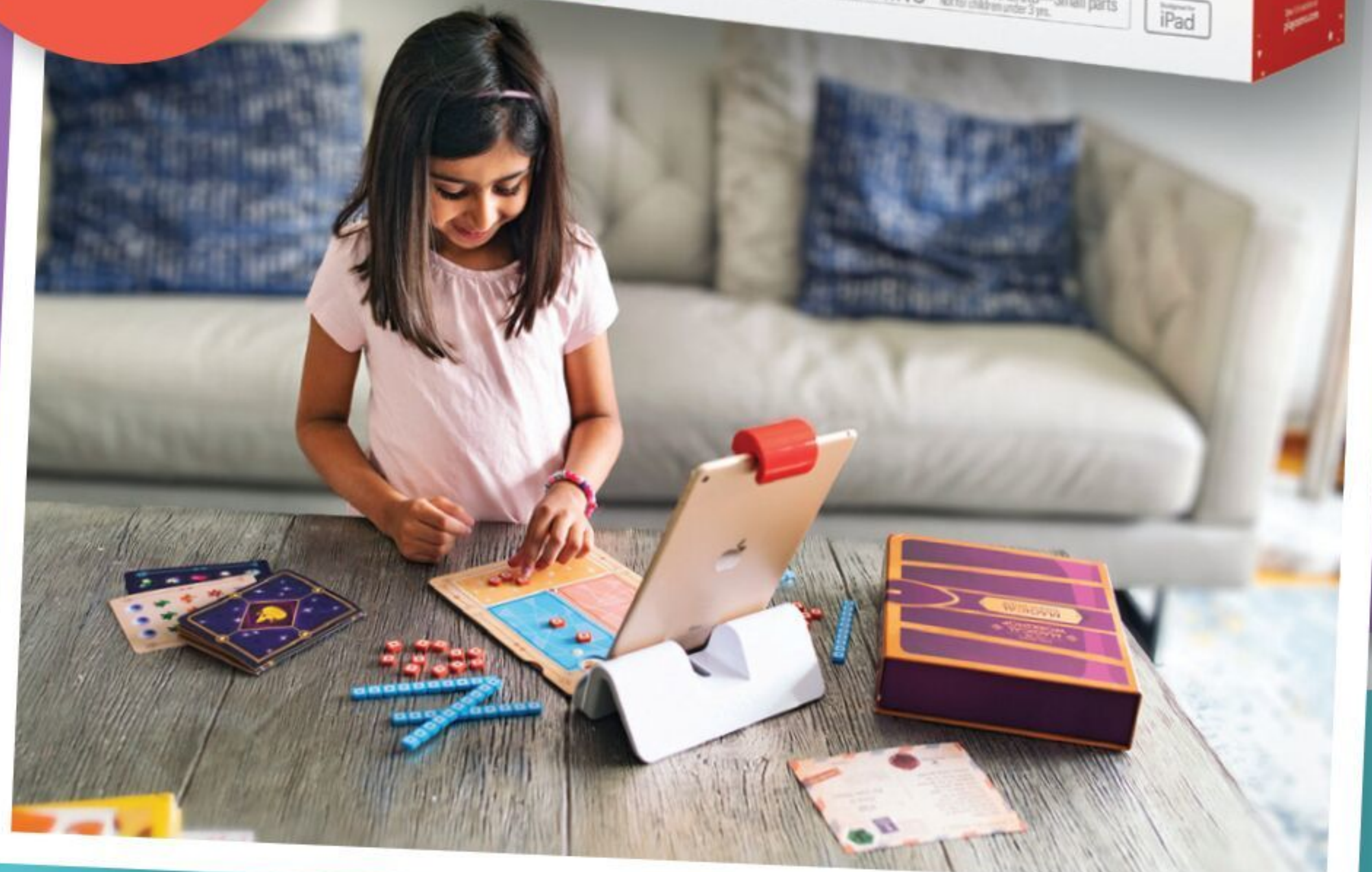
Four readers will bag **both Osmo kits!**

● Available at PlayOsmo.com

Q Which one of these elements does NOT make up water?

a) Aluminium b) Oxygen c) Hydrogen

Fire Tablet version also available!



Enter ALL comps at
natgeokids.com
 by 11 February

90 chances to win!



WIN! THEME-PARK SLEEPOVER

After the roller-coaster year we've just had, what better way to blow off steam than on a real-life roller coaster?!

Gulliver's Family Flexi Sleepover lets you enjoy a fun-filled day out at one of their four UK theme park resorts. Then, after a day packed with exciting rides and attractions, wind down at one of their amazing themed lodges.

Snooze in tree-house bunk-beds at Gulliver's World or have a dino-tastic

stay at Gulliver's Valley's Lost World Lodge. You could become a Pirate, Princess or Explorer at Gulliver's Kingdom or have a wild evening in the Jungle Safari Lodge at Gulliver's Land.

Two winners will get a Family Flexi Sleepover, which can be redeemed at any of these four parks. One runner-up will scoop a family day ticket to any of the four parks.

● Zip over to gulliversfun.co.uk/shop/



Q Unscramble these letters to reveal a ride you might find in a theme park... **A T E P I R H I S P**

Family Flexi Sleepover and family day tickets are for six people (max two adults). All prizes can be redeemed within 24 months. Travel not included.

WIN! HOW TO BE A HERO BOOK

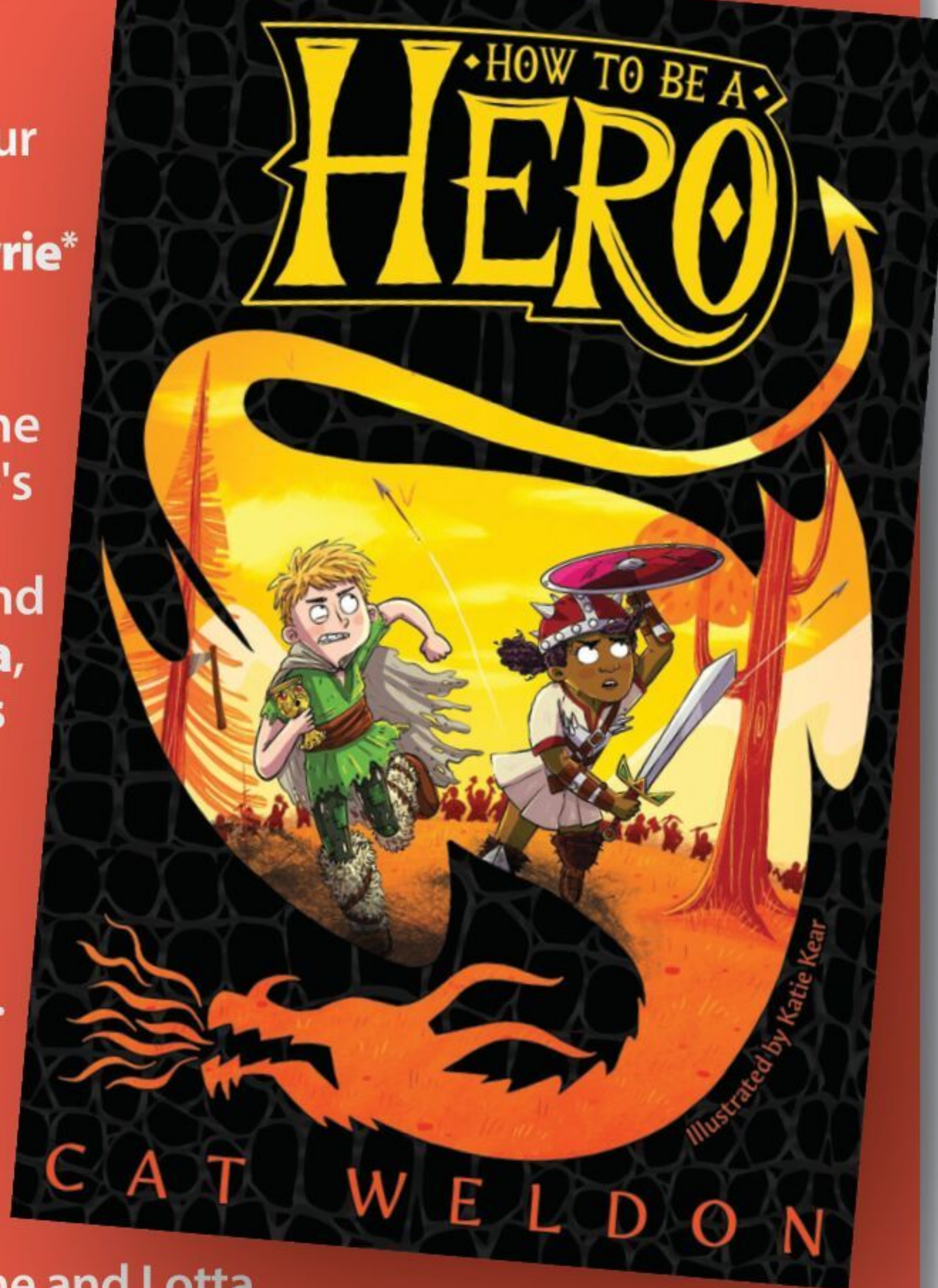
Love Viking mythology? Then make sure you get your hands on this book!

When trainee Valkyrie* Lotta discovers an unconscious Viking called Whetstone, she mistakenly thinks he's a hero who's been defeated in battle, and takes him to Valhalla, where dead warriors live happily ever after with chief Viking god Odin.

But Whetstone isn't dead. Nor is he a hero. He's a thief who's lost a precious talking cup and is desperate to cover up his mistake. So Whetstone and Lotta embark on a quarrelsome journey to find the cup and gain their heroic status for real. Unfortunately, Loki, the trickster God, is desperate to get his hands on the cup, too, and he plans to create chaos across the nine worlds. Uh oh! Can Whetstone finally become a hero when it matters most?

A mighty 70 winners will nab Cat Weldon's epic book!

● Find out more at panmacmillan.com



* In Norse mythology, Valkyries are magical women who bring dead heroes to Odin at Valhalla.

Q Who was the Viking god of thunder?
 a) Odin b) Thor c) Heimdall

WIN! A WHOLE YEAR OF ZOO VISITS

Meet all creatures great and small with this incredible prize from ZSL!

The ZSL Silver membership package gives you unlimited entry to ZSL London and Whipsnade Zoo for a whole year! That means you and your family can get up close to the planet's most incredible creatures – from lions, tigers and hippos to brilliant birds like flamingos and penguins.

You'll also get exclusive digital member updates from ZSL, a charity that's devoted to the worldwide conservation of animals and their habitats. Nice!

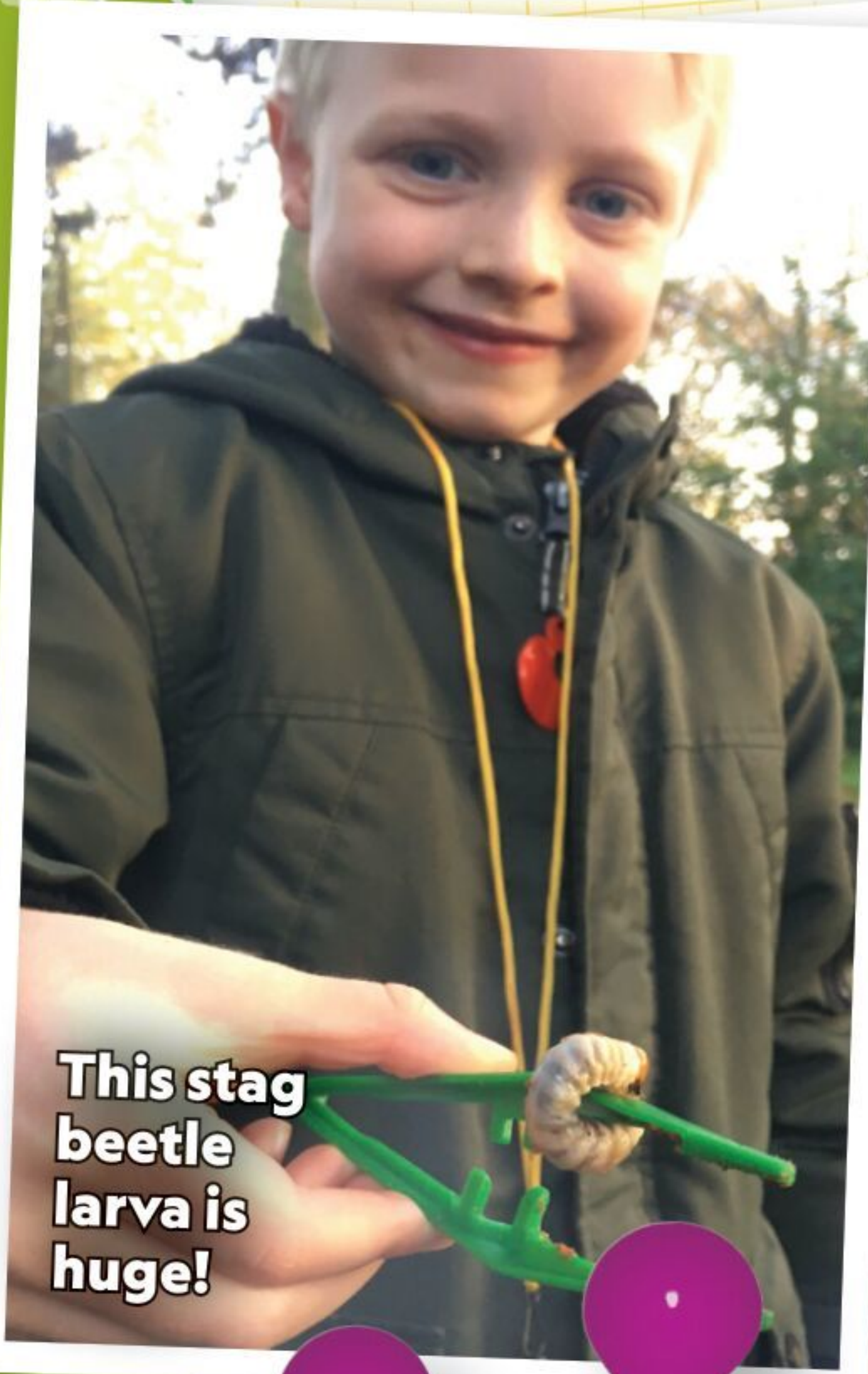
One lucky animal lover will win a one-year Silver membership package, plus a £250 gift voucher to spend on whatever they like at ZSL's online shop (zsl.shop.org) or in one of the zoo's gift shops – from T-shirts and books to puzzles and cuddly toys!

● Silver membership is for two adults and up to four children. Find out more at zsl.org/membership



Q What is the world's biggest big cat?
 a) Siberian tiger b) Snow leopard c) Cheetah

JUNIOR EXPLORERS' CLUB



This stag beetle larva is huge!



Henry got up close to a...



... smooth newt!



WILDLIFE WATCH

Dear NG KiDS,
I am a keen **bug enthusiast** and love going on **adventures** looking for them! One of my favourite places is the **Tarn Bird Sanctuary** in **Southeast London**. I found my first ever **smooth newt** there, after turning over a **big stone**. I am really **careful** and **gentle** with the creepy crawlies I find, and I always **put them back in their natural habitat**.

Henry, 5
● Amazing finds, Henry! Did you know that *three* different species of newt live in the UK?



HA HA

LOLZ HA

Q What did the angry emoji say to the sad emoji?
A You're so emoji-nal!
Aoife, 11

HA HA HA HA



Hi NG KiDS,
I was inspired to **draw animals** after watching my **dad drawing** – I thought it looked fun, so I wanted to try, too. I **love making pictures of animals** because they have **cute eyes** and I **like learning about nature**. My favourite animals to draw are **owls**.
Luca, 6
● Your owl is great, Luca. Bet you had a **hoot** doing it!



ECO HEROES



Andrew (left) and Matthew got the litter bug!



They even found supermarket trolleys!

In November I did a **sponsored litter pick** around my **hometown**, helped by my eight-year-old **brother Matthew**. We collected **40 bags of litter** and **two shopping trolleys!** We raised over **£300 for the WWF**. I really enjoyed making our area cleaner for people and wildlife and am thankful for the support I received.
Andrew, 9
● Wow, that's a lot of litter. Top work!

We want to hear from YOU! Email kids@ngkids.co.uk with your artwork, jokes, craft pics and pet photos; tell us about your wildlife sightings, hobbies and interests, and share your opinions! We'll print a selection here. Every reader featured on these pages this month will find out how to become a waste warrior with their own copy of *Kids vs. Plastic* from NG Kids Books!

Available at harpercollins.co.uk



AWESOME LIGHT SHOW!

Last year, before lockdown, my family visited **Tromso** in **Norway**. The **snow was so deep** we couldn't use the playground equipment, but we still had lots of fun making **snow angels**.

One night we stayed up very late so we could see the **Northern Lights** (above). It was amazing. It's also called the **Aurora Borealis**. It was so **magical** to see the **green ribbons of light** in the sky.



The Northern Lights are caused when electrically charged particles from the Sun collide with the Earth's atmosphere

For a few nights, we stayed in the **mountains** at **Camp Tamok**. It was extremely cold, especially when the temperature reached **-20°C** – our toes felt like they might freeze. But we soon warmed up in a **Sami Lavvu** (a type of tent) by the **fire**.

Lilly, 11 and Callan 9

Wow, what an experience, guys! The Northern Lights look stunning. Did you know that the Southern lights are called Aurora Australis?

Callan (left) and Lilly had fun in the snow!



POETRY CORNER

Dancing

*My feet grew cold
as I danced through the grass.
I sprouted wings and flew up
above the clouds in the midnight air.
As it filled my lungs, I felt free.
Flying above the clouds,
I did a somersault,
and let my mind soar free.*

Mary, 10

Beautiful poem, Mary. We felt like we were soaring with you!



YOUR FUN STUFF MAKE ITS

NATIONAL GEOGRAPHIC

KIDS

Go, go, Oreo!



Name: Oreo
Age: 6 months
Breed: Long-haired miniature dachshund
Likes: Food, walks, dancing with his human sister (me!), and attention
Dislikes: Rain and taking a bath
Owner: Marika, 11



I made this **Advent calendar** from issue **184**. It was fun **writing the jokes down** and putting **chocolate coins** in the **bags that I made**. I really enjoyed having **something to do during lockdown**, as it's very boring when you're stuck at home! **Making it made me very happy!**
Anaiya, 8
It looks fantastic, Anaiya. Bet you were excited to open the bags back up, too!



Here's a picture of me with the **Advent calendar** that I made for my **grandma**.
Francesca, 7
Well done, Francesca. Your grandma must have been delighted!

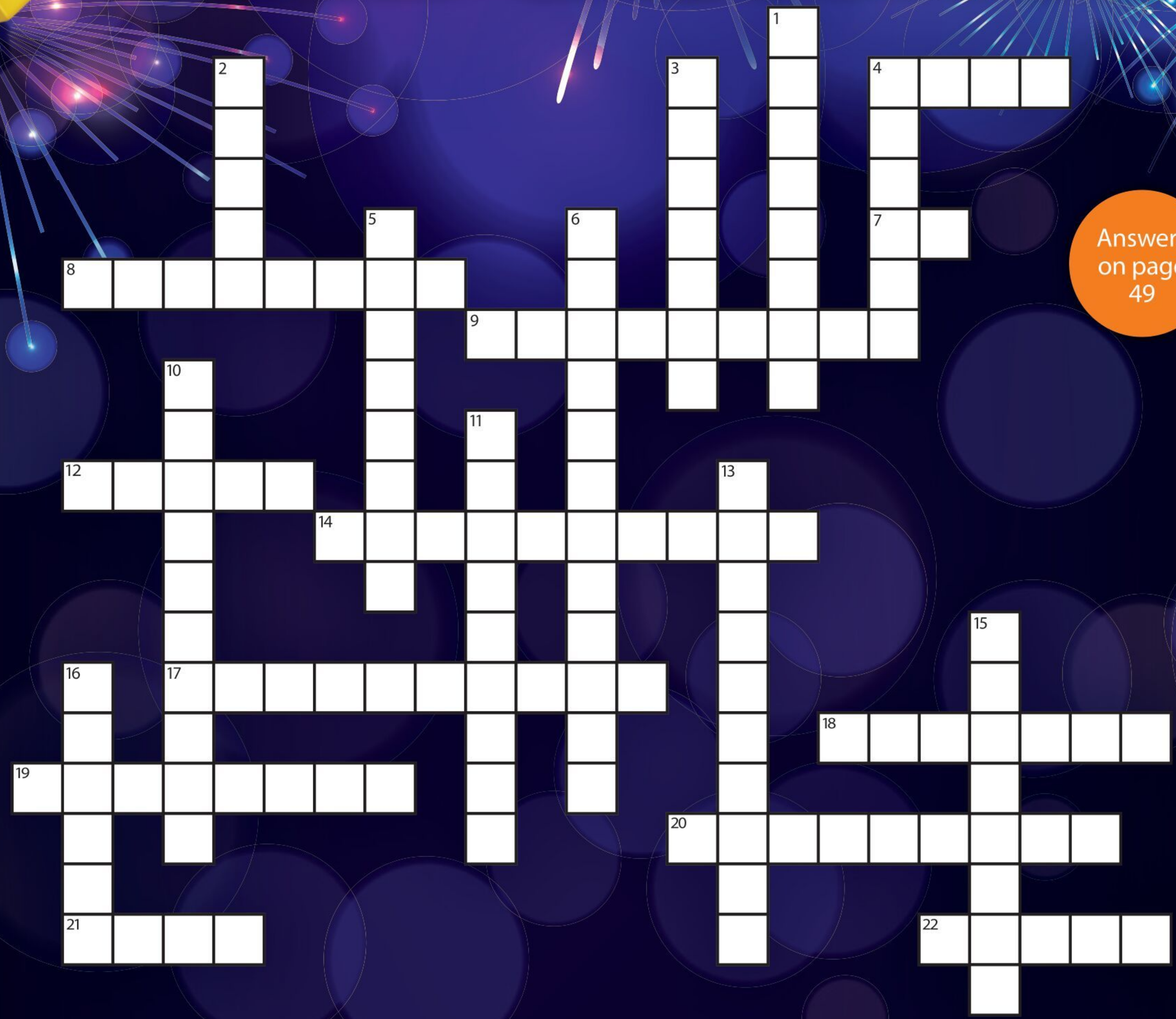
COVER STAR!

FUN

STUFF

GAMES, LAUGHS, AND LOTS TO DO!

2021 CROSSWORD!



Answers on page 49

Across

- 4 Scottish song sung to bid farewell to the old year at the stroke of midnight on New Year's Eve. Auld Lang _____ (4)
- 7 According to the Chinese zodiac, 2021 is the year of the _____ (2)
- 8 Twelve-month chart that helps you keep track of the year (8)
- 9 What hedgehogs do during winter (9)
- 12 Popular arm-swinging dance move. Also a type of dental string. The _____ (5)
- 14 Where laws and decisions are made about the UK. Houses of _____ (10)
- 17 Promise to yourself made in January (10)

- 18 Quiet place where you can read or borrow books (7)
- 19 When February has 29 days – 2020 was one of them, but 2021 *isn't* (4, 4)
- 20 Colourful explosions set off during celebrations (9)
- 21 Long, thin amphibian with a tail, sometimes found under rocks by ponds (4)
- 22 Arms and legs (5)

Down

- 1 Alternative name for New Year's Eve in Scotland (8)
- 2 Holy book for Christians (5)

- 3 Cold month, named after the Roman god Janus (7)
- 4 Religious name for Pancake Day, on 16 February this year. _____ Tuesday (6)
- 5 Person who performs tricks (8)
- 6 Books, newspapers and magazines are examples of these (12)
- 10 Say "Cheese" for one of these! (10)
- 11 Saint who has a romantic day named after him in February (9)
- 13 Place where you can study for a degree. Cambridge, for example (10)
- 15 Painting of a person (8)
- 16 Number of time zones in Russia (6)

VOTE GROUNDHOG

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



Every year on _____ **date** my friends and I watch _____ **male celebrity** the _____ **animal** come out of his burrow. Legend says that if he doesn't see his _____ **noun**, spring will come early. If he does, we have six more weeks of _____ **type of bad weather**. We wore _____ **adjective** coats and _____ **article of clothing, plural** to the ceremony because it was only _____ **small number** degrees outside. After the mayor spoke, the animal _____ **past-tense verb** out of his home. At first he didn't do anything. Suddenly he darted up the podium and started to speak. "I've decided to run for _____ **type of job**!" he said. Lots of _____ **something that flies, plural** and squirrels got onstage too. They quickly _____ **past-tense verb** a campaign banner and began handing out _____ **large number** _____ **noun, plural** to the crowd. Our mayor was _____ **adjective**. But we were _____ **adjective describing emotion** – we could be the only town run by a(n) _____ **same animal as before**! Plus, the animal never saw his _____ **same noun as on line 2**. No more winter for us.

To read more about Groundhog Day, turn to page 5.



SPOT THE DIFFERENCE

Can you find **20** differences between these two towns?
Answers on page 49





THE BIG QUIZ

LOCKDOWN LOWDOWN

- 1 Which item did people start panic-buying in March, causing supermarket chains to ration sales?
- a) Tinned soup
 - b) Toilet paper
 - c) Haribo sweets



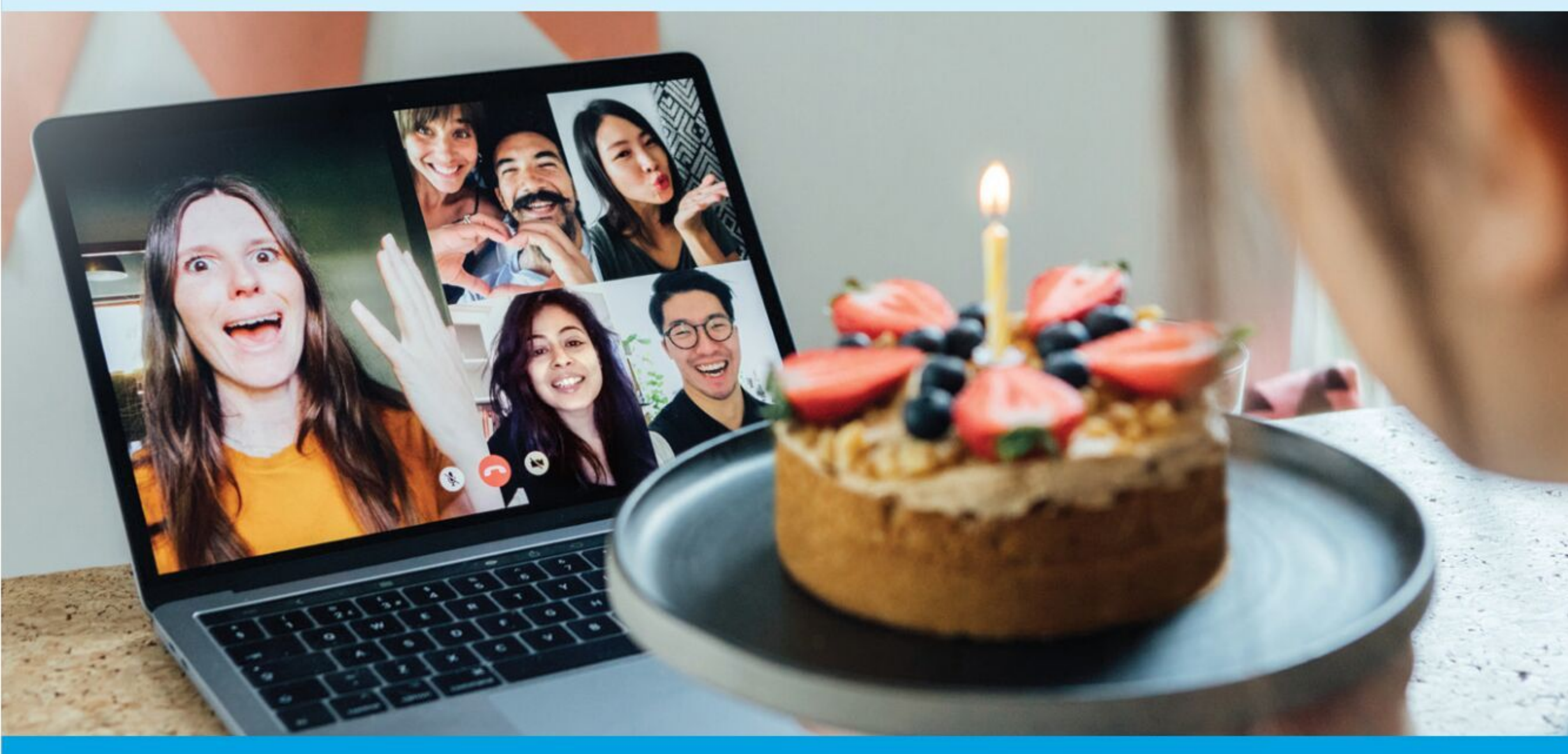
- 2 Who became known as the nation's PE teacher after his weekday exercise classes on YouTube became a huge hit between 23 March and 22 July?
- a) Boris Johnson
 - b) Joe Wicks
 - c) Mo Farah

- 3 100-year-old Captain Tom Moore raised over £32 million for NHS charities during lockdown in April, and was knighted for his fundraising efforts! What was he sponsored for doing?
- a) Walking 100 laps of his garden
 - b) Fitting 100 items inside a matchbox
 - c) Sitting in a bath of baked beans for 10 hours



- 4 What did children across the UK start displaying in their windows to cheer up their neighbours and show appreciation to the NHS?
- a) Union Jack flags
 - b) Christmas trees
 - c) Rainbow paintings

- 5 What's the name of the video conferencing software that many families used to stay in touch with each other during lockdown?
- a) Boom
 - b) Zoom
 - c) Vroom



MISSING WORDS

Fill in the blanks in these newspaper headlines!

- 1 Hail stones the size of _____ fall during storms in Canberra, Australia **JANUARY**
- a) Golf balls
 - b) Grapefruit
 - c) Footballs

- 2 New Zealand's Baldwin Street reclaims titles as the world's _____ street **APRIL**
- a) Smelliest
 - b) Most expensive
 - c) Steepest

- 3 UK government unveils plans to ban _____ advertising before 9pm in the UK **JULY**
- a) Computer game
 - b) Loo roll
 - c) Junk food

- 4 3 October becomes UK's _____ day on record **OCTOBER**
- a) Hottest
 - b) Wettest
 - c) Coldest

- 5 Scotland's most vulnerable to be given free _____ to help cope with lack of daylight during lockdown. **NOVEMBER**
- a) Sun lamps
 - b) Spinach
 - c) Vitamin D supplements

FAMOUS FACES

Match these people with the reason they made the news in 2020!



1 Kamala Harris

A Won series 20 of the Great British Bake Off.

Let's take a look back at the craziness of last year and see what we can remember!

Answers on page 49

SPORTS & ENTERTAINMENT

1 Which of the following events was NOT completely cancelled this year?
a) 2020 Tokyo Olympics b) The London Marathon
c) Glastonbury

2 *Star Wars* spinoff *The Mandalorian* arrived in the UK on 24 March, on the new Disney+ streaming service. The baby version of which character featured in the show?



a) Chewbacca
b) Darth Vader
c) Yoda

3 Which historical event was broadcast on Channel 4 on 7 June?
a) The 1966 Fifa World Cup Final between England and Germany
b) The Coronation of Queen Elizabeth II in 1953
c) The Battle of Hastings in 1066

4 *Spring and Autumn Watch* host Chris Packham was joined in presenting duties by which family member in May and October?



a) His step-daughter Megan
b) His sister Jenny
c) His pet squirrel Dave

5 Which Roald Dahl book got made into a movie for the second time and was released this October?
a) *The Witches* b) *James and the Giant Peach* c) *The Twits*



ANIMAL JUMBLE!

1 Which critically endangered creature is the coronavirus pandemic thought to have spread to humans from?
LINGOPAN _____

2 An emotional support animal called Larry attended Black Lives Matter protests in America during 2020 to help calm crowds and ease tensions. What type of creature is he?
ALMALA _____

3 Five newly discovered species of which animal were named after Marvel superheroes in July?
YLF _____

4 Which creature was discovered alive in New York City's Rockefeller Center Christmas Tree in November, having been transported there from a forest.
LOW _____

5 President-elect Joe Biden broke his foot when playing with one of his pets in November. What breed is it?
REGNAM SHEDHERP _____



2 Lewis Hamilton



3 Peter Sawkins



4 Jacinda Arden



5 Marcus Rashford



6 Dominic Cummings

B Former government advisor angered nation by breaking lockdown to visit a castle.

C Became Prime Minister of New Zealand for a second term.

D Man Utd footy star campaigned to end child hunger in the UK.

E Voted in as the USA's Vice-President-elect in November.

F Became the most successful racing car driver of all time with 92 Formula-1 wins.

FIND THE HIDDEN ANIMALS

Animals often **blend in** with their **environments** for **protection** or to **help them hunt**. Find the creatures listed below in the pictures, writing the letter of the **correct photo** next to the **name** of each **animal**. *Answers on page 49*

1. Stargazer (a type of fish) _____

2. Arctic fox _____

3. Screech owl _____

4. Harlequin crab _____

5. Katydid _____

6. Common chameleon _____





D



E



F

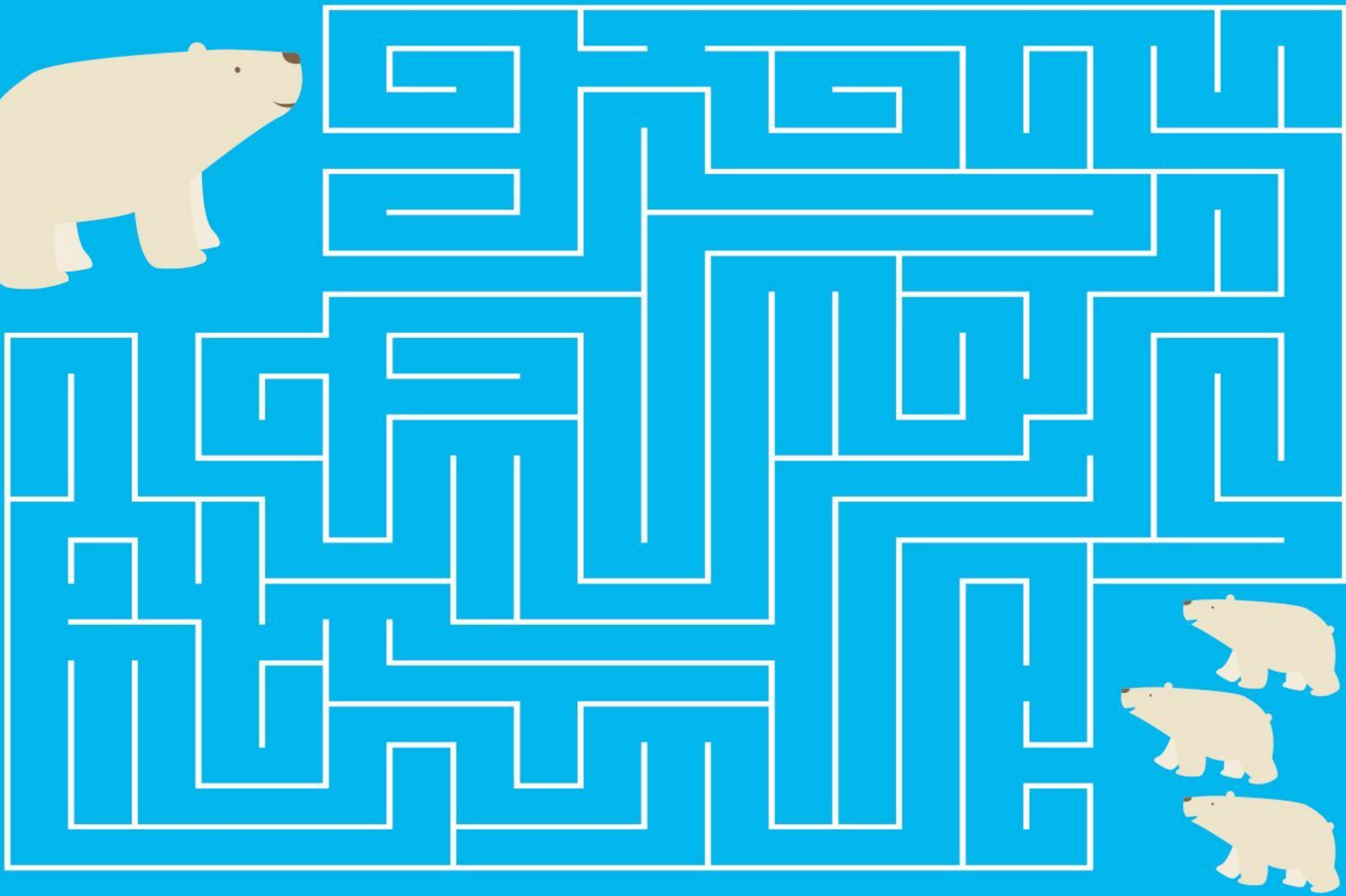
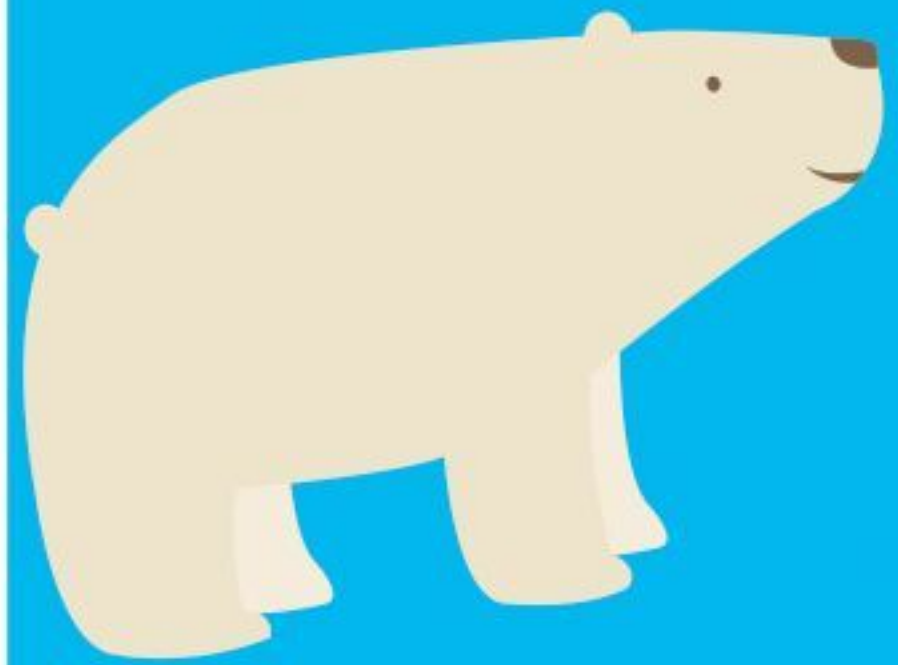
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BRAIN BOOST



POLAR PALS

Guide this polar bear through the maze to find her family.



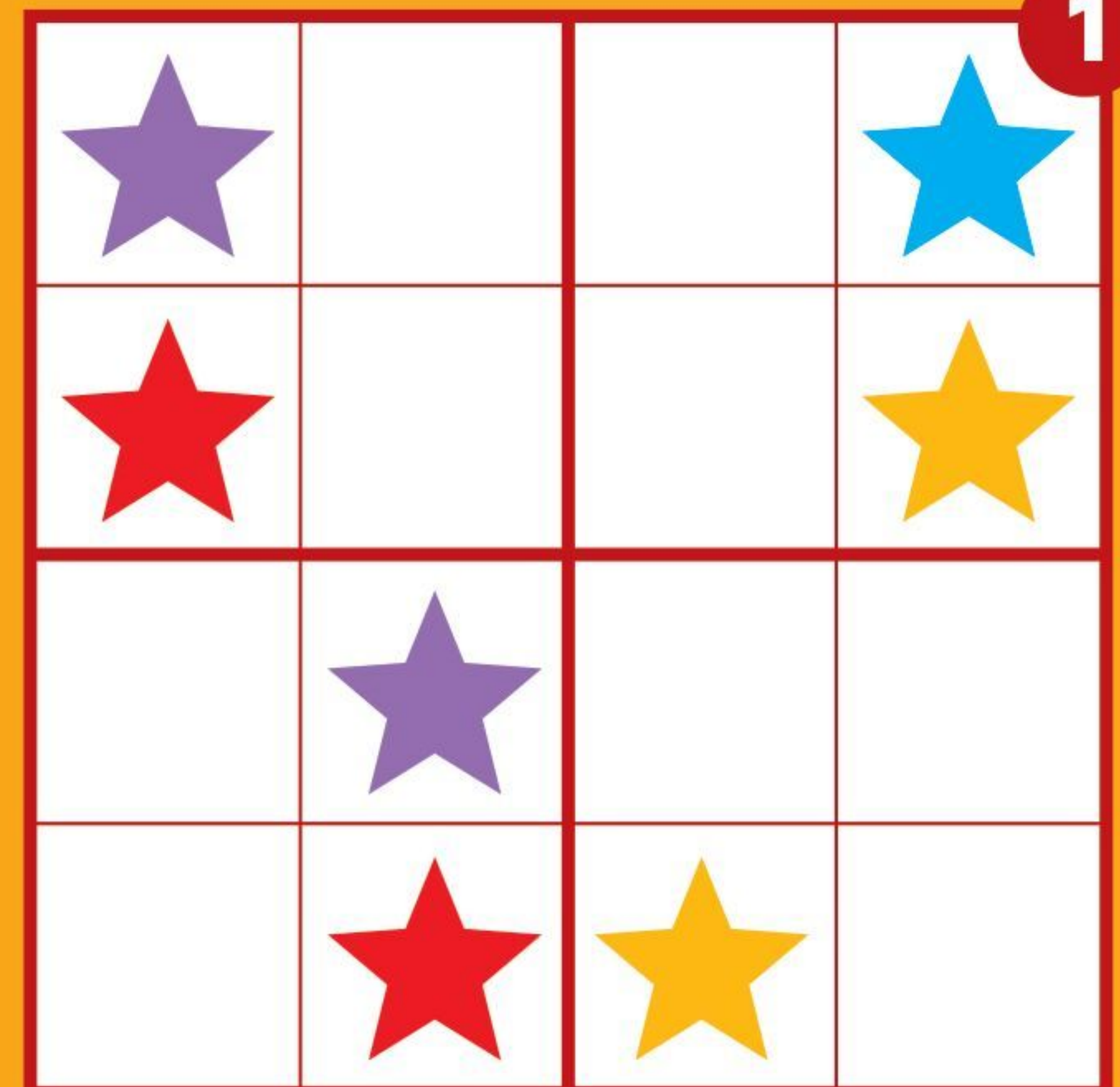
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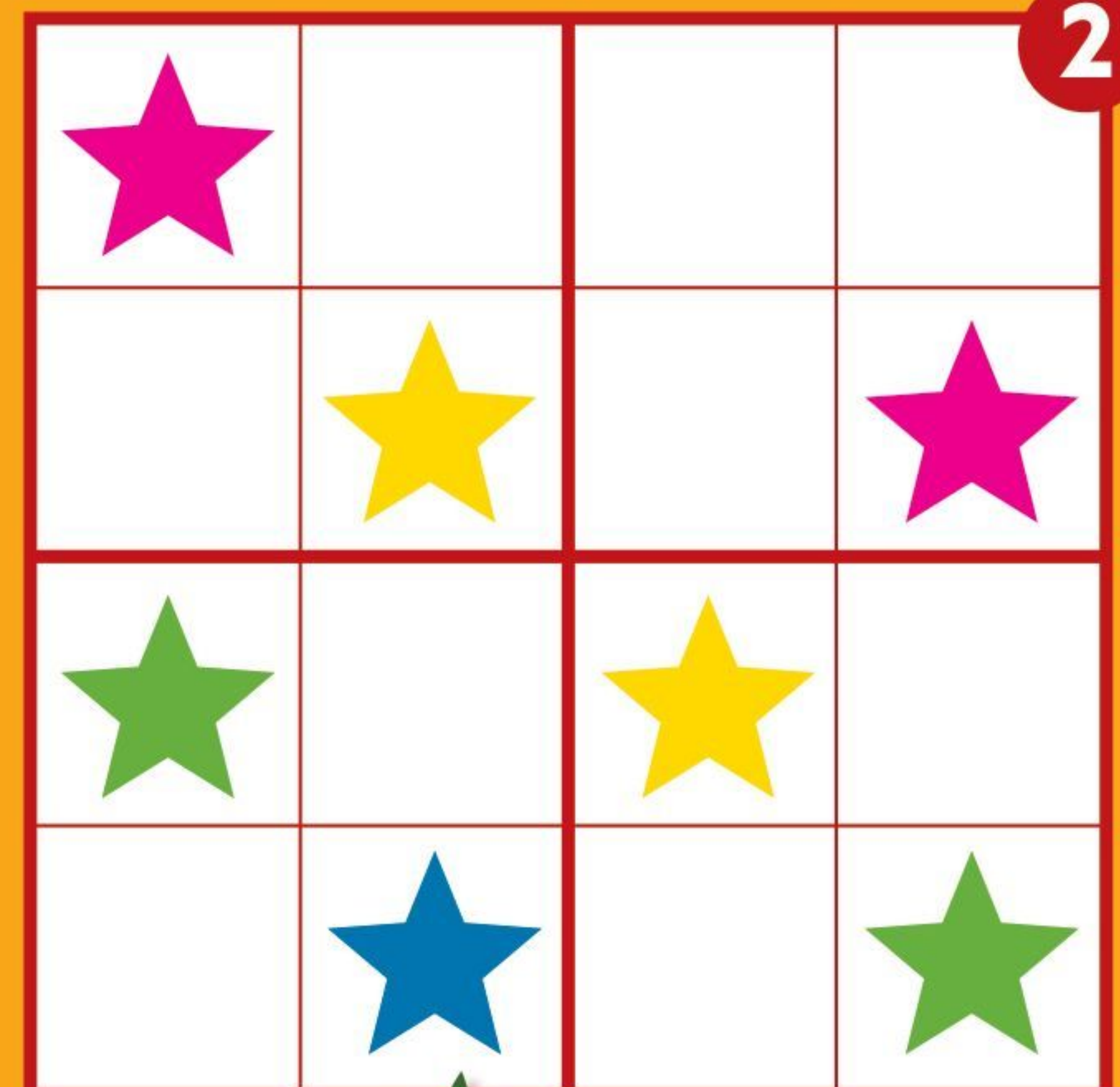
12

SUDOKU STARS

Fill all the empty squares so every row, column and 3x3 box contains all four different stars.



1



2

MATHS MATCH-UP

Can you find the answer to each of the sums?

A $14 \times 2 =$

E $12 + 32 =$

B $15 \div 3 =$

F $4 \times 8 =$

C $12 + 18 =$

G $32 - 7 =$

D $89 - 22 =$

H $6 \times 9 =$

CLUE! The answers are all here...

67 25

30 44

54 28

32 5

GAME GRID

Try to fit these sporty words into the grid as quickly as you can!

- BASKETBALL
- FOOTBALL
- GYMNASTICS
- ICE SKATING
- RUGBY
- RUNNING
- TENNIS
- TRAINERS



We've added some letters to get you started!



8



13



NG!



Tackle these tricky challenges to boost your brain cells!

Answers on page 49



FRUITY FUN!

Which scrummy snack is only shown once on these pages?



COUNT 'EM UP!

Can you spot how many of these listed items appear in this jumble?

- LOLLY
- CUPCAKE
- LIGHTNING
- WAND
- CHERRY
- CARROT
- PRESENT
- HEART
- DIAMOND

CRACK THE CODE

Solve this code to complete our roar-some lion fact!

LION CODE

- | | |
|-------|-------|
| ✕ - A | * - N |
| ☆ - B | ✓ - O |
| * - C | * - P |
| ◆ - E | ♣ - R |
| ⊛ - H | ☆ - T |
| * - I | * - U |
| ✦ - L | ☆ - W |

A baby lion can be called a...



* * ☆
 _ _ _ ,
 ☆ ⊛ ◆ ✦ *
 _ _ _ _ _
 ✓ ♣
 _ _
 ✦ * ✓ * ◆ ☆
 _ _ _ _ _



RESOLUTION REVEAL

Fill in the missing letters to spell out some helpful New Year's resolutions...

- T_RN O_F LIGH_S
- HE_P OTH_RS
- SAV_ W_TER
- _E K_ND
- R_CYCLE M_RE
- W_LK WH_N YOU C_N
- _SE L_SS PLA_TIC
- GO GR_EN
- 9
- 6

PICTURE IT!

Use the first letter of each of these things to reveal a secret season.

-
-
-
-
-
-

FUN STUFF MAKE IT



BIRD FEEDER!

Encourage feathered friends to your garden with this feeder. It's easy-peasy orange squeezy!



What you'll need

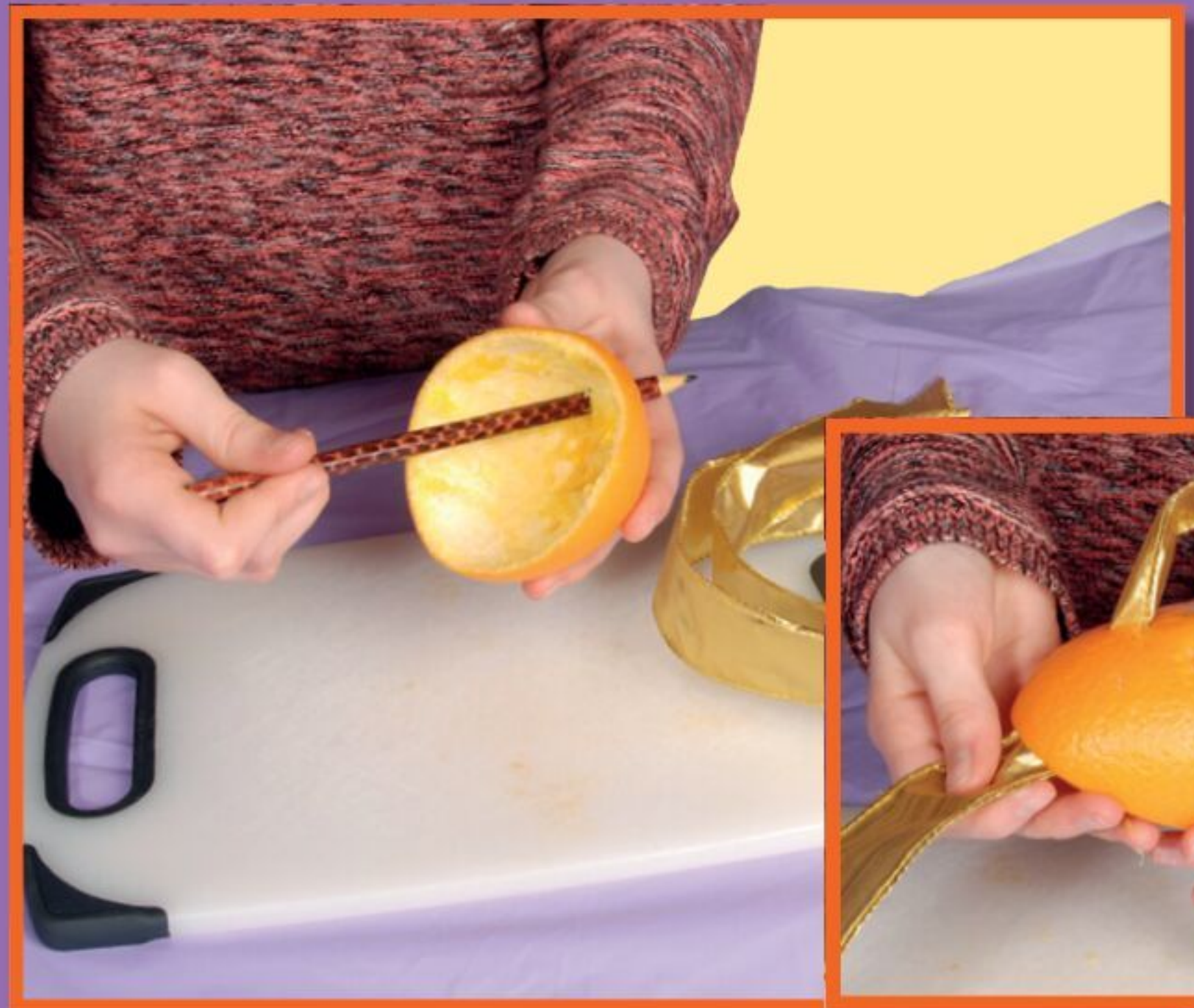
- Large orange
- Chopping board and knife
- Sharp pencil
- Ribbon or string
- Mixing bowl
- Mixed seeds, unsalted peanuts and raisins
- 1/4 block of lard – leave it out of the fridge for 30 minutes first
- Grated mild cheese (optional)

Start here!



YOU CAN SAVE THE ORANGE TO EAT LATER!

1 First, cut an orange in half across the middle and scoop out the flesh. This will form a cup for your bird food.



2 Poke two holes in the base of the orange skin with a sharp pencil, about 3-4cm apart. Then thread the ribbon or string through either side.



3 Now, chop the lard into rough cubes and pop them into a mixing bowl.



4 Add some seeds, nuts, raisins and cheese, then scrunch it together. Use a spoon if you prefer.



5 Make sure the ribbon is at the sides of the orange 'cup', then pack the seed and lard mixture inside. Put it in the fridge to set for 30 minutes. Tie it up in your garden or balcony and then watch the birds tuck in!



TOP TIP

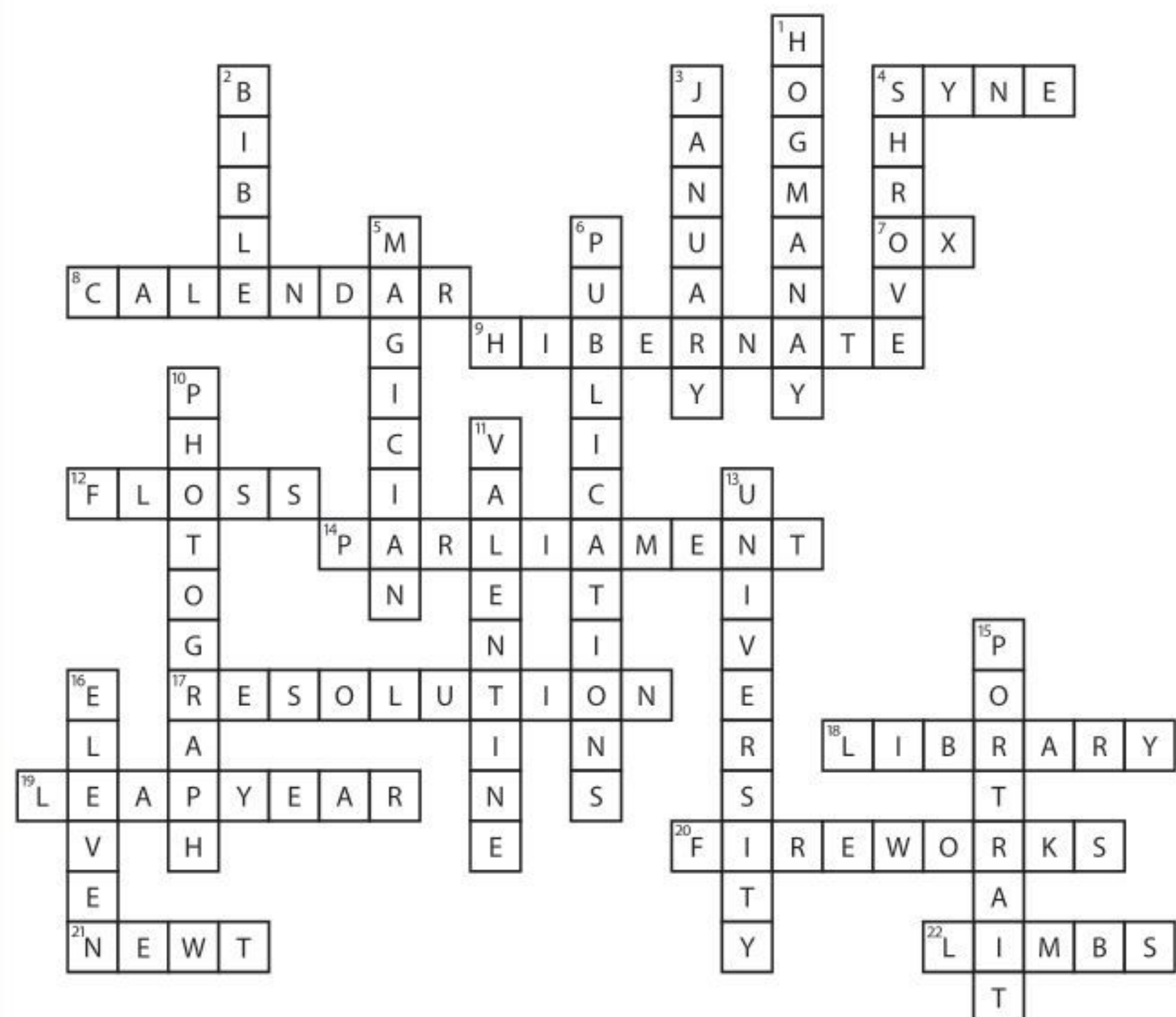
Try to hang your feeder in a place that's **quiet** and where the birds can't be **ambushed** by cats!



FUN STUFF ANSWERS

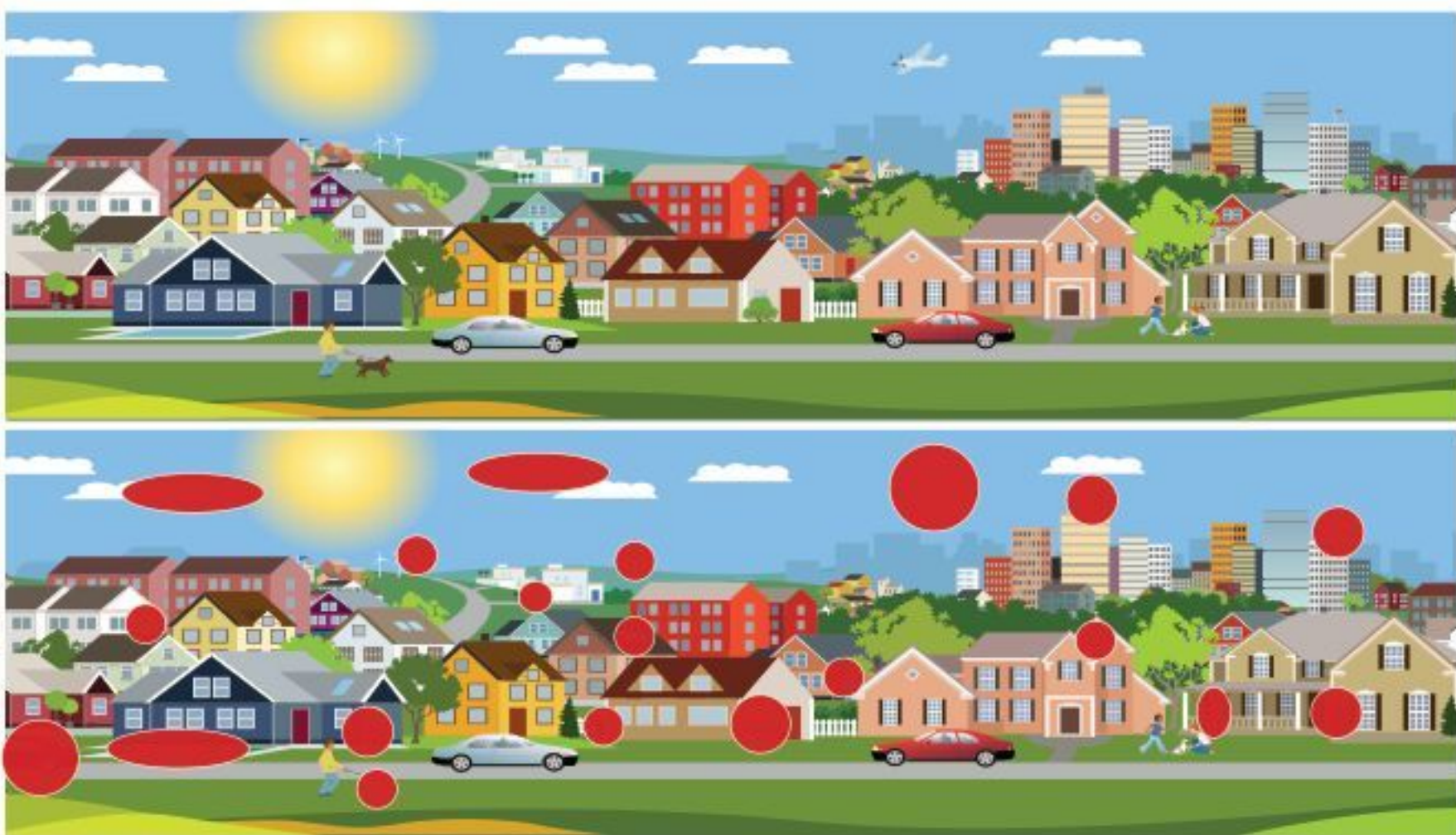
NEW YEAR CROSSWORD!

(page 38)



SPOT THE DIFFERENCE

(page 40)



THE BIG QUIZ 2020!

(page 42-43)

LOCKDOWN: 1-b) Toilet paper; 2-b) Joe Wicks; 3-a) Walking 100 laps of his garden; 4-c) Rainbow paintings; 5-b) Zoom.

MISSING WORDS ROUND: 1-a) Golf balls; 2-c) Steepest; 3-c) Junk food, 4-b) Wettest; 5-c) Vitamin D supplements.

FAMOUS FACES: 1-E; 2-F; 3-A; 4-C; 5-D; 6-B.

SPORTS & ENTERTAINMENT: 1-b) The London Marathon; 2-c) Yoda; 3-a) The 1966 Fifa World Cup final between England and Germany; 4-a) His step-daughter Megan; 5-a) The Witches.

ANIMAL JUMBLE!: 1-PANGOLIN; 2-LLAMA; 3-FLY; 4-OWL; 5-GERMAN SHEPHERD.

FIND THE HIDDEN ANIMALS

(page 44-45)

1-B; 2-C; 3-D; 4-F; 5-E; 6-A.

BRAIN BOOSTING!

(page 46-47)

FRUITY FUN!

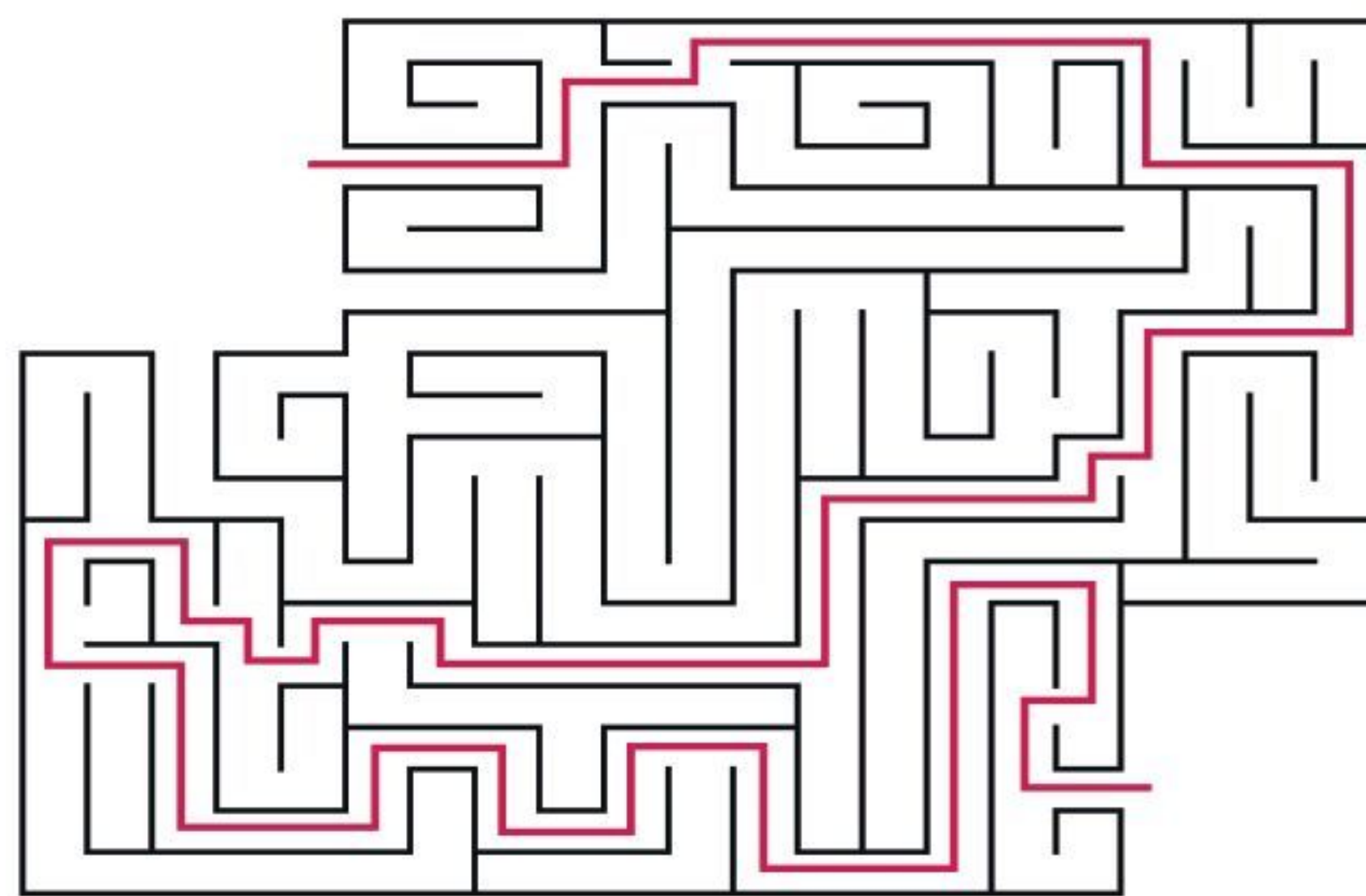
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BOOST YOUR BRAIN

(page 46-47)

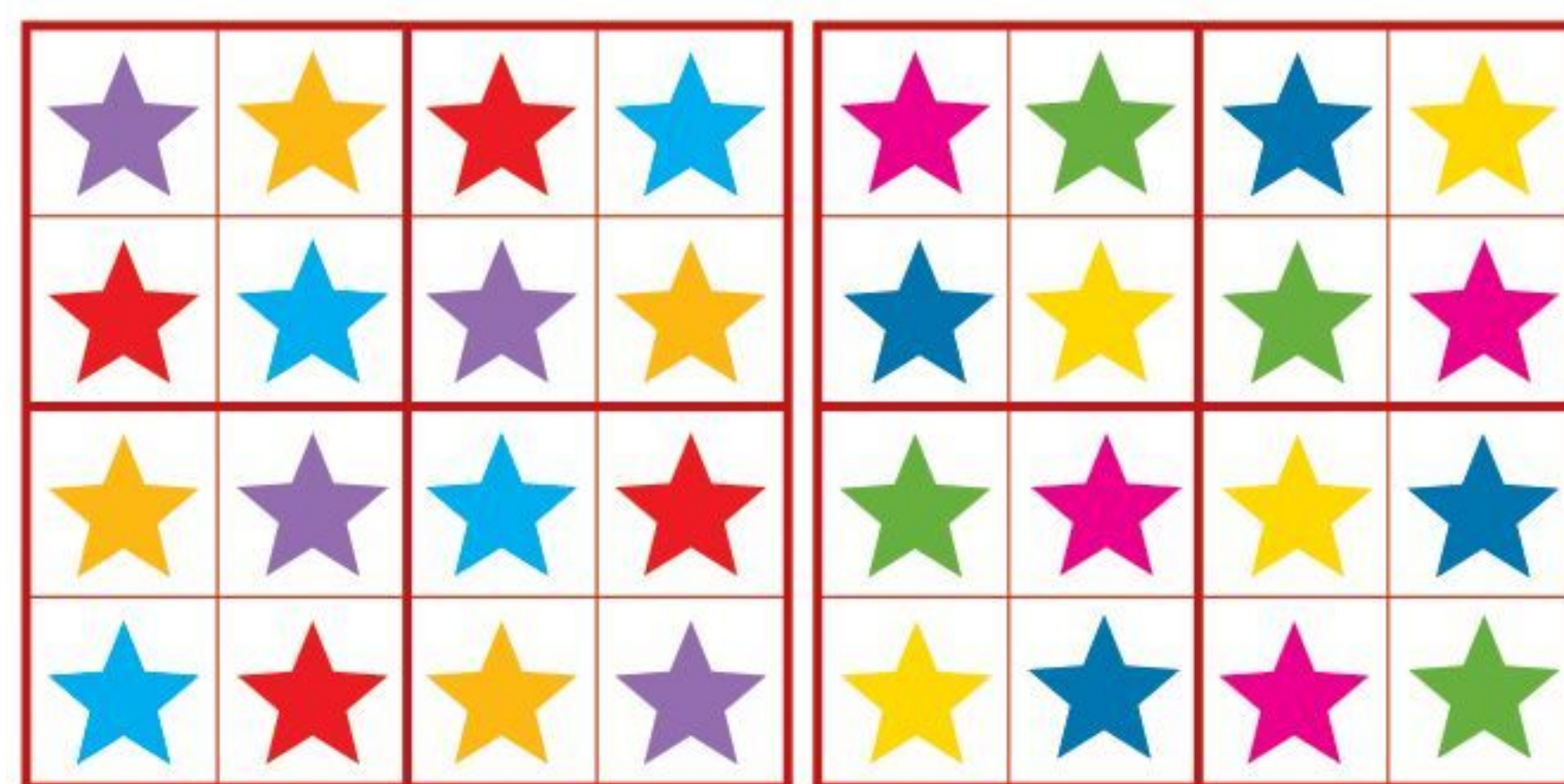
POLAR PALS



MATHS MATCH-UP:

A-28, B-5; C-30; D-67; E-44; F-32; G-25; H-54.

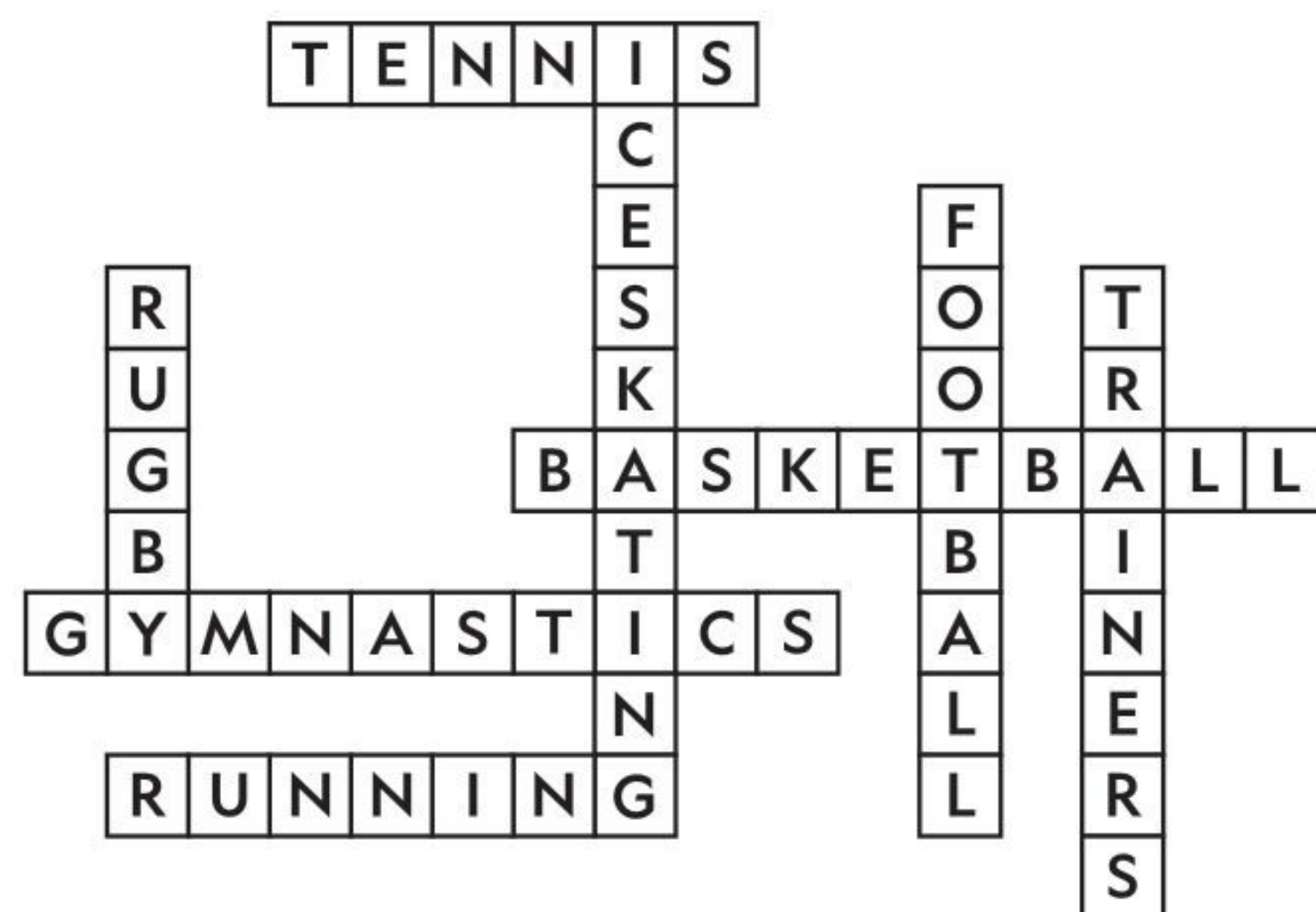
SUDOKU STARS



1

2

GAME GRID



COUNT 'EM UP!:

Lolly x3; Cupcake x2; Lightning x4; Wand x3; Cherry x6; Carrot x5; Present x3; Heart x7; Diamond x4.

RESOLUTION REVEAL:

1-TURN OFF LIGHTS; 2-HELP OTHERS; 3-SAVE WATER; 4-BE KIND; 5-RECYCLE MORE; 6-WALK WHEN YOU CAN; 7-USE LESS PLASTIC; 8-GO GREEN.

PICTURE IT!

SPRING.

CRACK THE CODE

Cub, whelp or lionet.

THE LAST LAUGH

Q. Did you hear about the man who stole a calendar?
A. He got 12 months!

Q. What did the drummer call his twin daughters?
A. Anna 1, Anna 2!

Q. What time do ducks wake up?
A. At the quack of dawn!

Q. What's an Ig?
A. A snow house without a loo!

Q. What do snowmen call their kids?
A. Chill-dren!

Q. What's a ghost's favourite month of the year?
A. Janu-erie!

Q. Why did the pair of scissors win the race?
A. It took a shortcut!

Q. Why are fish so clever?
A. Because they live in schools!

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A BEE-RILLIANT BEEHIVE BOOK

Turn your garden into a bustling home for mason bees with *Turn This Book Into a Beehive*. These super-pollinators do the work of over 100 honeybees, and they usually live in hollow reeds or holes in wood, bricks or mounds of soil.

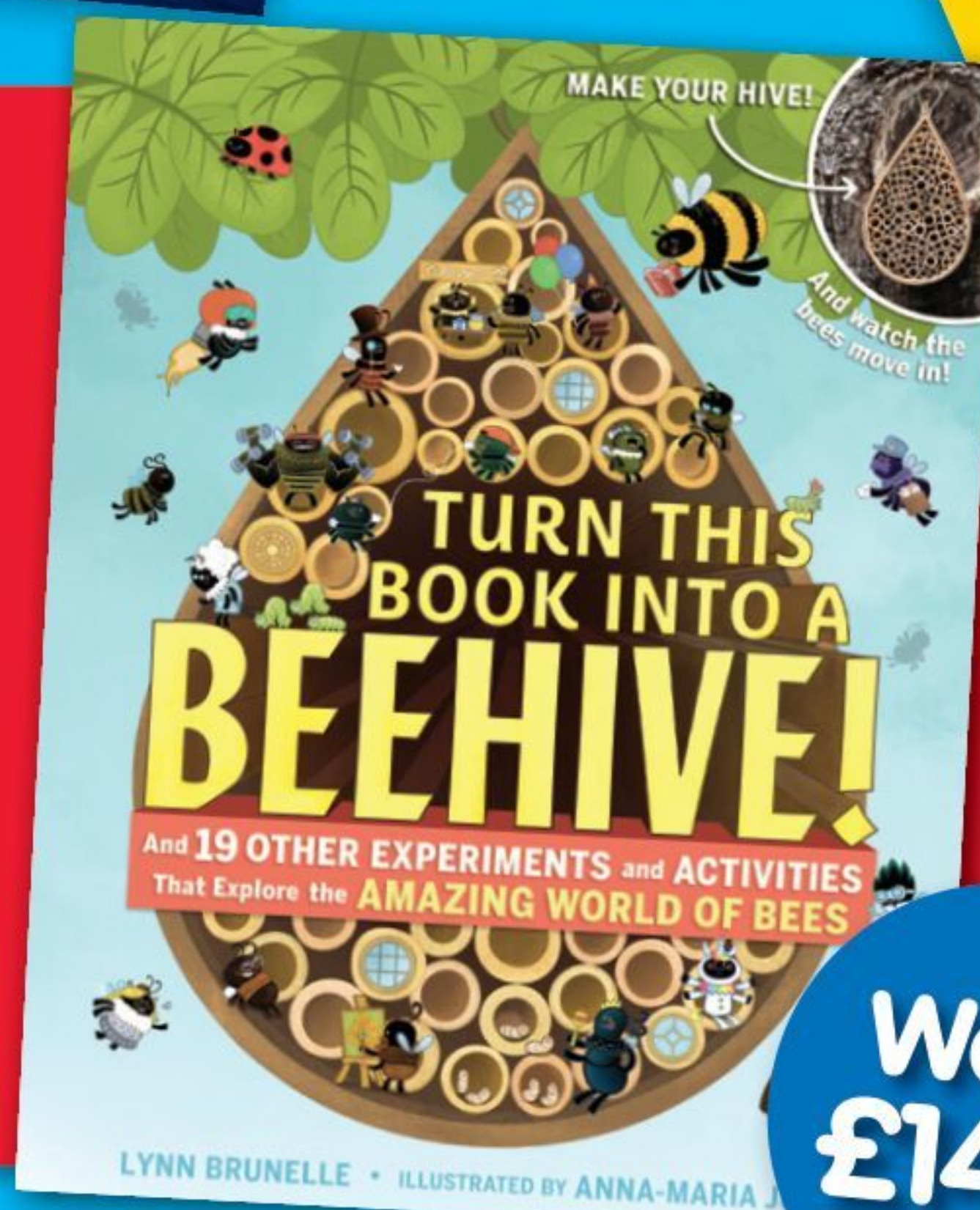
Just tear out the perforated paper, roll the sheets into tubes, enclose them using the book's cover, and hang the structure outside. The bees will arrive, pack mud

into the tubes, and begin pollinating the plants in your garden.

Discover how these incredible insects communicate through dance and learn about the role of pollen with 20 fascinating experiments and activities. This book really is the *bee's knees!*

The first 50 new NG Kids subscribers this issue will get a copy of this book.

● Buzz over to bookdepository.co.uk



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Editor Tim Herbert
Art Editor Ed White
Features Editor Georgia Harrison
Digital Editor Gemma Chandler
Senior Designer Claire Brisley
Staff Writer Alexander Tan
Thanks to Paul Kane and Vincent Vincent

Creature Media Ltd
 PO BOX 219
 Unit 3, Queenborough,
 ME12 9BF



Editorial enquiries kids@ngkids.co.uk
Advertising enquiries tracey@ngkids.co.uk
Financial enquiries accounts@ngkids.co.uk
Managing Director Peter Johnson
Financial Controller Lucy Vi
Acting Finance Assistant Jesse Clift
Promotions and Partnerships Director Tracey Steel
Creative Solutions Manager Francesca Duggan
Senior Marketing Manager Emily Meredith
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I'm bear-y cute!

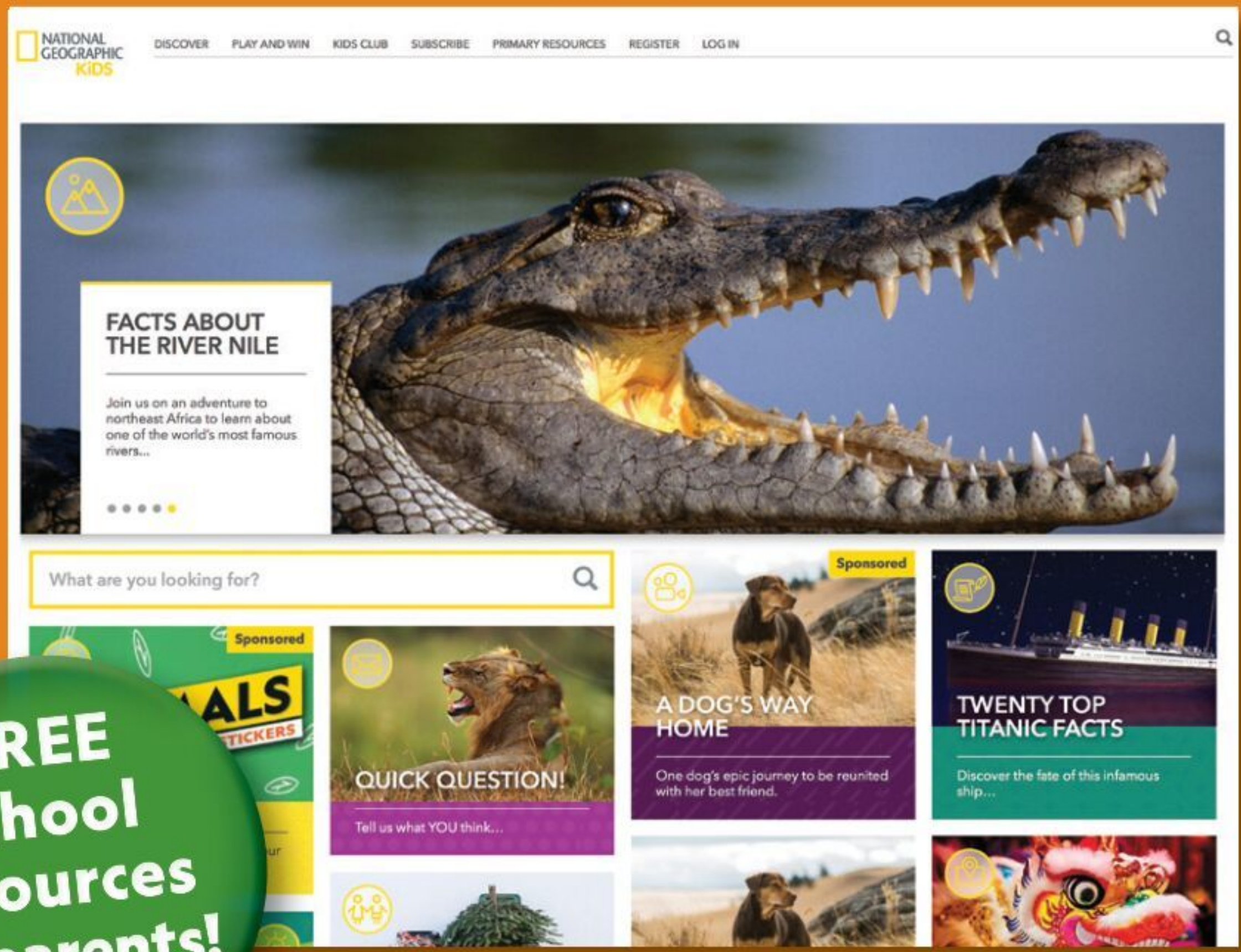
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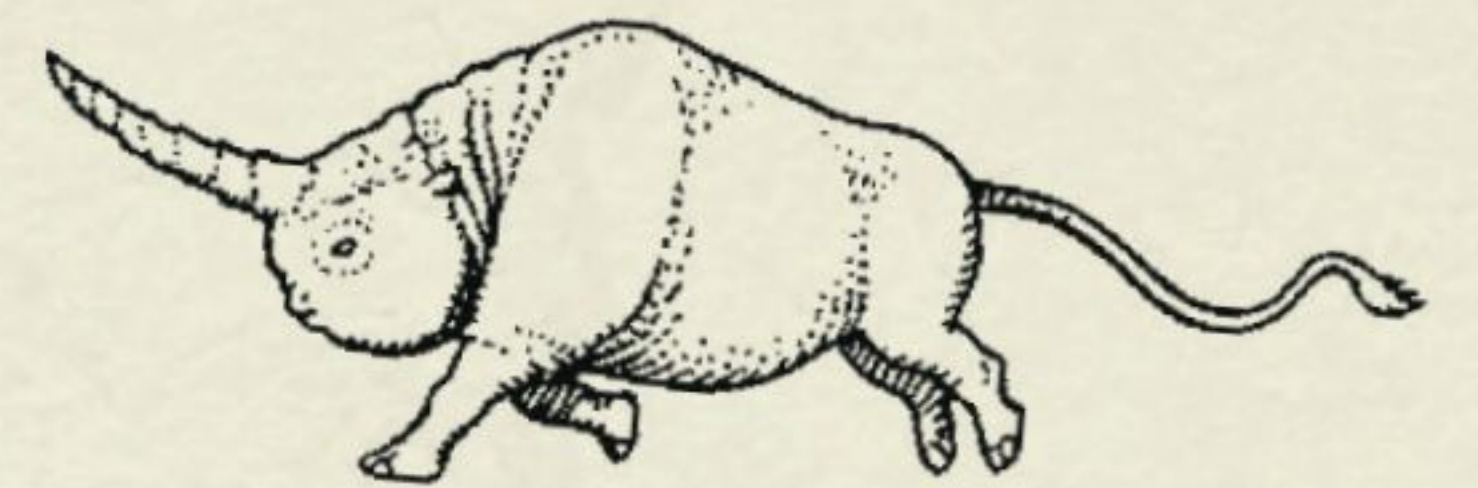
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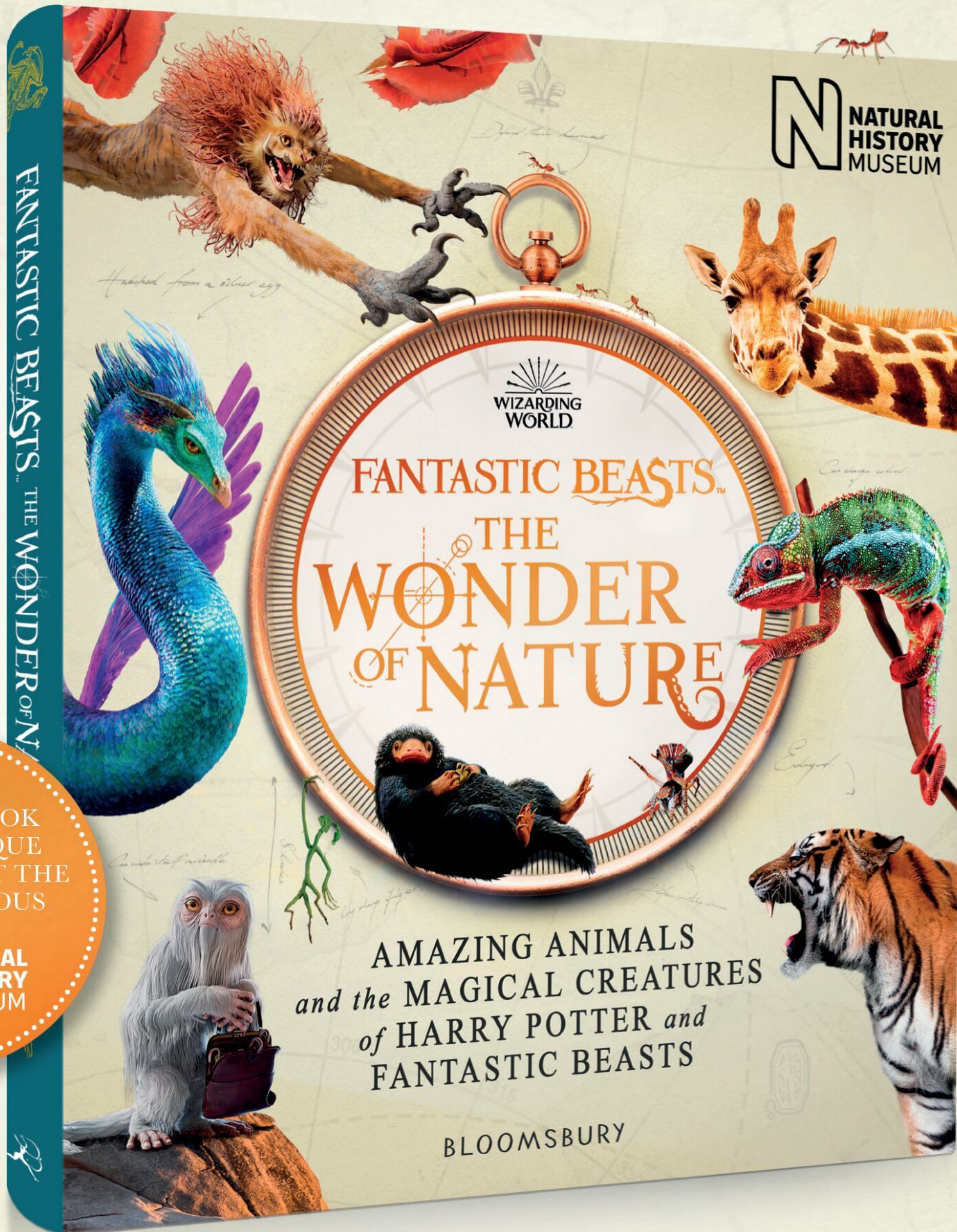
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