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supernova

The mag for curious kids



**SOUTH AFRICA'S
VANISHING
SPECIES**

Vol
11.3

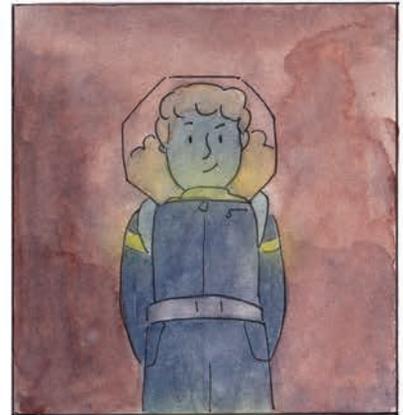
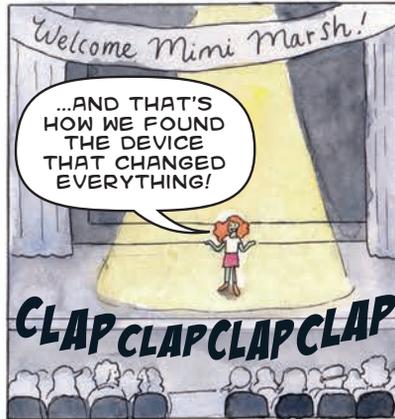


PUZZLES | SCIENCE | NATURE | ACTIVITIES | SPORTS | COMICS



Story and artwork
Maya LeMaitre

Mimi's LIFE ON Mars



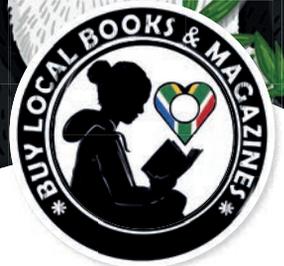
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Hi SuperKids



Candice

Taking a broad, overall look at this issue of *Supernova*, there's one theme that stands out quite strongly to me – survival!

In our first big article of this issue, you'll read about the huge battle that we face in ensuring the survival of the endangered animals in our beautiful country. It's important to make sure that these threatened species are around for future generations to enjoy, but also because they play a huge part in the delicate balance of our ecosystem!

Then, you'll read about the historical sinking of the most famous ship ever – the Titanic. On the night it sank, 2 200 people fought for their survival in the freezing cold Atlantic Ocean. You'll also learn all about glaciers, why they are so amazing, and why they are so important. It's predicted that almost 70% of glaciers will have melted by 2100, which could be a huge threat to our oceans.

But, from all of these topics, we can also learn that there is always something worth fighting for. And that fighting for the things we believe is key! We can inspire others, bring about change, and have a ripple effect on the world around us.

And that's what *Supernova* is all about. Happy reading and stay curious, kids!

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Sulé's top picks in this issue!

Hey guys! These are my absolute top picks that you **HAVE** to check out in this new issue!

I love that this issue is about endangered animals. It's super important that we are aware of what goes on in the world around us.

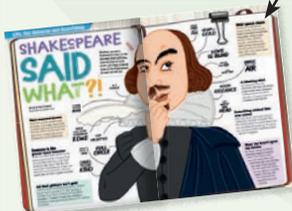


Sulé

Supernova's editorial assistant

One of my favourite articles is Danica's Review in the Pinboard! Since Danica is my little sister, I can't help but feel extremely proud when I read her reviews.

Did you know that many of the phrases we use today were invented by a man who lived more than 400 years ago?



Check out some of these phrases in *Life, the Universe and Everything* (page 18)! I have always been a fan of the way Shakespeare bends words and uses language to make readers see colourful pictures in their minds.

Andy's Atlas (page 16) is one of my favourite articles, because it always feels like I'm being transported to all these amazing places. And, let's face it, Budapest is one of the best.



The illustrations for the Titanic article (page 30) are absolutely gorgeous. I was immediately drawn in when I read it! Learning about historical events is always exciting, so I really enjoyed seeing this come to life.



Looking for more?



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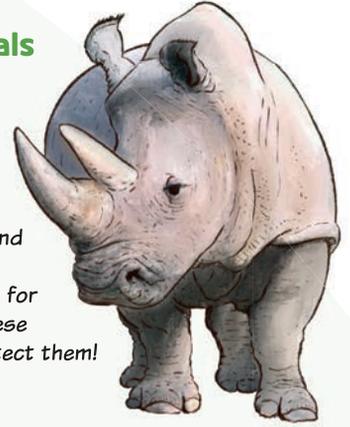
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When we think about endangered animals, we usually think about rhinos first! Sadly, there are a growing number of endemic South African animals that are endangered and face serious threats to their survival. Check out our new Ant's Eco Adventure for some insight into the issues facing these animals and what is being done to protect them!



29 Make a rabbit pencil holder



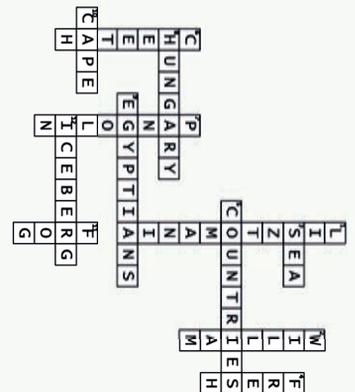
Need a homework companion during exam season? Look no further! This super cute rabbit pencil holder can be customized to any animal you like, and is made from a recycled cooldrink bottle!



30 Would you have survived on the Titanic?

How much do you know about the most famous ship to ever sail the seas? Did you know that almost 53 000 litres of water was used every day on board the ship? Or that from the 2 200 passengers that set sail on Titanic's first trip in 1912, only 700 survived? Do you think you would have survived the trip on the Titanic?

Answer for Brain Games, page 40:



Cool facts about glaciers

Glaciers are thick masses of ice that cover large areas of land. But did you know that they can also move, and 'flow' like a river? Check out our top 10 cool facts about these ice giants!



Answers for What'cha Reading, page 41:

- 1a. False
- b. True
- c. False
- d. False
- e. True
- 2. ice, compacted, continents, Alpine, cool, climate.

Ask Jules?



Jules

Many people think that species that hibernate go to 'sleep' during the winter. However, hibernation is actually an energy-saving device for some animals! When these animals hibernate, they can slow down or even completely stop some of their physiological functions, like their metabolism, heart rate, body temperature and even their breathing!

And hibernation is not just for the winter! Since it is a way for some species to conserve their energy, animals can hibernate for a number of reasons. It could be to survive extremely cold temperatures, or stay cool in the heat, or to save energy when there are food shortages or droughts, and even for protection from predators. Most hibernators are mammals, but there are also some amphibians, reptiles and insects that enter hibernation-like states.

Jacob (11)

from Blouberg asked us:

Why do some animals hibernate?



Knot too shabby

Kirsten Neuschäfer has become the first woman to win the Golden Globe Race! This solo, non-stop, unassisted sailing race around the world is a prestigious and dangerous event that has been running since 1968.

Competing against 16 opponents (all men), Kirsten made history by beating them all – after 233 days, 20 hours, 43 minutes and 47 seconds at sea. The South African sailor from Gqeberha crossed the finish line off Les Sables d'Olonne in France at 9pm on the 27th of April 2023.



Sign language becomes South Africa's 12th official language

?! Get this!

Different countries have their own versions of sign language – just like there are different accents and dialects in speech!

South Africa celebrates its many colourful languages by recognising 11 official languages. Now, it is adding another official language to the list!

As of May 2023, Sign language is now the 12th official language in South Africa. This is very positive for the Deaf community, and shows South Africa's efforts towards providing language accessibility for everyone. So far, only 41 countries recognise Sign language as an official language.

?! Get this!

Sign language uses more than just hand gestures. It also includes facial expressions, gestures and body language to communicate.

Creature FEATURE

Saiga antelope are a small species of antelope that are very well adapted to their harsh living conditions in the semi-desert grasslands of Central Asia. They are easy to spot because of their large, bulbous noses, which are used to filter out dust in the dry summers and cool their blood quickly. They are shy and quick, and weigh less than 40kg! Saiga typically feed on the tops of succulent plants, and once travelled in large herds of up to 1 000 antelope! Unfortunately, their global population has declined rapidly by around 95% in recent years, as they are hunted for their horns. These are mainly used in traditional Chinese medicine and are believed to help with a variety of ailments, from headaches to seizures. Now, saiga antelopes are critically endangered.

Experts believe that saiga antelopes have lived on our planet for so long that they even saw mammoths, along with other species like bison and reindeer!



Did you know?

Hummingbirds are the only birds that can fly backwards

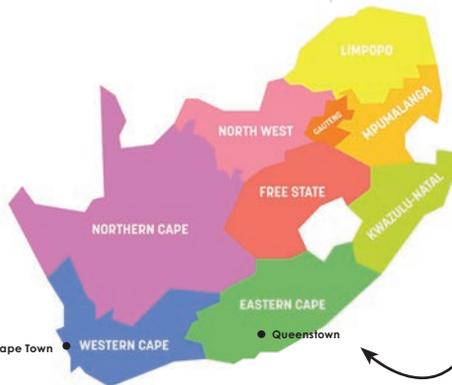


CHOC KIDS CORNER

Placed across South Africa, you'll find 13 CHOC houses – a safe haven for children and families which acts as their home-away-from-home while they undergo specialised treatment at cancer treatment centres. Each family that visits a CHOC house has a unique story. This is Luthando's story:

In September 2022, eight-month old baby Luthando was diagnosed with cancer of the eye at Frere Hospital.

When Luthando had to have his eye removed, CHOC helped his family relocate to Cape Town so that they could be closer to the hospital.



His family is originally from the Macebeni Village in Queenstown.

CHOC even gave his family some much-needed funds to get to the hospital during a strike when the hospital ambulances were not working.



Luthando's granny wrote about how grateful she is to CHOC for their assistance and hopes they will continue doing the amazing work that they do for families in need.



Danica's Book Review



JonathanBallPublishers

Danica (12) read 'Which Way to Anywhere' by Cressida Cowell. Here's what she thought:

What a fun book! Following along with the O'Heros' adventures made me wish I could jump into the book and run along with them. From the start, I loved Izzabird – I really admire her courage, bravery and that she always stood up for what is right. I enjoyed the humour in the book so much and the character development had me hooked. The funky illustrations, crazy use of words, and awesome journey makes this book an unforgettable adventure!



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Venezuela



Fighting to save Venezuela's Orinoco Crocodile

Photo by Federico Parra

Venezuela's Orinoco crocodile is a fearsome beast! They can grow to more than 6m in length and over 400kg, making them one of the largest crocodiles in the world! But, their enormous size and sharp teeth were no match for humans who hunted them (mainly for their skins) to the brink of extinction. Their population was reduced by 80% in just three generations, and until recently, only about 100 adult female Orinoco crocodiles were left in Venezuela.

However, in 1990, the task of breeding new crocs in captivity began. Now, around 10 000 Orinoco crocodiles have been freed back into the Venezuelan wild! All fingers crossed that these resilient reptiles can regrow their population and complete the major task of conserving their species.

Franz Liszt

The world's first 'rock star'

Franz Liszt was born on the 22nd of October 1811, in a small village called Doborján in the Kingdom of Hungary.

His father was a gifted amateur singer, pianist and cellist who played in some summer concerts at the Esterházy estates, alongside Joseph Haydn.

By the time Franz was six years old, he was already attracted to the piano and was soon given lessons by his father.

At eight years old, he started composing his own music.

When he was nine years old, he had his first public appearance as a concert pianist at Sopron and Pozsony. His playing impressed the local Hungarian magnates, and they offered to pay for his musical education in Vienna for the next six years.

In Vienna, he received piano lessons from Carl Czerny, one of Ludwig van Beethoven's music students.

Franz's first composition was published when he was only 13 years old.

When he turned 16, he moved to Paris and began giving lessons on playing piano and composing.

By the mid-19th century, Franz was surprising the polite salons and concert halls of Europe with his virtuoso performances.

Franz saw that playing the piano, especially for a whole evening in front of an audience, was a theatrical event.

He became so popular that women would tear bits of his clothing, and fight over broken piano strings and locks of his shoulder-length hair.

The phenomenon of making his audiences go into a frenzy during his performances was even called 'Lisztomania'.

In 1842, he was crowned the 'Kapellmeister Extraordinaire' of Weimar.

During his lifetime, Franz Liszt went on to compose around 1400 works.



GOOD LUCK TRADITIONS AROUND THE WORLD

Who wouldn't love a little extra luck in their lives? Through centuries and across the world, people have developed symbols, practices, and charms to win luck over to their side. Here are a few interesting traditions from around the world that are said to bring good fortune!

Illustrations by Alexandra Botha-Green

Under different circumstances, your friends and family might not enjoy waking up to find shattered pieces of old plates all over their doorstep! But in Denmark, chucking plates at your friends' and family's houses on New Year's Eve is simply a way of wishing them prosperity in the year to come.



Here's another way to make sure you have a lucky year ahead! On New Year's Eve in Spain, it's custom to eat 12 grapes as the clock strikes midnight – one grape for each strike of the clock. If you can finish them in time, you'll have luck all year!

In Colombia, going for a walk around your neighborhood with an empty suitcase is said to bring a year full of travel and adventure! Some people simply wheel their bag around the house or leave it by the front door, but taking your luggage on a proper journey around the block is said to increase your chances of travelling abroad in the coming year.



The History of Salt

Layout by Elaine Carr
Words by Candice Robertson

Without salt, not only would your food be bland and tasteless, but you also wouldn't be able to function! This white mineral is the only rock that humans consume, and it's essential for muscle control, nerve impulses, and maintaining the proper balance of water and minerals. But, that's not why it became (and stayed) one of our most important products!

The power of salt

Since germs cannot live in salt, it has been used to preserve food for thousands of years. Ancient Egyptians were the first to realise this and used salt to store large amounts of food for a long time. This helped grow populations, develop cities, and feed soldiers during war. But, salt wasn't just used to preserve food! Mummies were packed in salt too. When mummies were shipped down the Nile as cargo, they were taxed as 'salted meat'.

Putting a price on it

In ancient times, salt was more valuable than it is now because it was very hard to get. So, people often traded other things for salt, and it had a very high value. After people learnt how to get salt from the ocean, it became cheaper. Over time, many wars were fought over salt as some empires tried to take control of salt production.

?! Get this!

In Ancient Rome, soldiers were even paid in salt! This where the word 'salary' comes from.

Feeling... salty?

Salt was sometimes used in war, as a way to punish a city by ruining its crops. This is called 'salting the Earth', and is said to have first been done by the Assyrians to their neighbours.

?! Get this!

In its natural state, salt is normally found as the mineral 'halite', around salt springs, salt lakes, and in the ocean.



the future of Green Energy

Words by Sulé Potgieter

Have you ever heard of countries actually sharing electricity? Since there is a massive energy crisis on the horizon, people have had to start getting a lot more creative to start fighting this issue – and it looks like they might have found a solution...

LionLink is a **multi-purpose interconnector** that creates a link **between two countries**. This link is used to feed **electricity** between the United Kingdom and the Netherlands.

What are interconnectors?

Interconnectors are extremely long cables that stretch from one country to another. When the two countries are connected, they can safely and easily share electricity between one another. A multi-purpose interconnector uses multiple sources of electricity (like offshore wind farms) at once, where a normal interconnector connects to only one source at a time.

How do they do this?

While the cables sometimes have to go through the ocean to connect countries, the people who install them don't even have to worry about getting wet! The cables are taken out into the ocean on boats and sent down to the ocean floor. When the cables are at the bottom, underwater machines dig channels for them to sit comfortably underground.

?! Get this!

This project is only starting its development phase this year, which means we might have to wait until 2030 to see it happen!

?! Get this!

'LionLink' refers specifically to the two countries collaborating on this project. Since both England and the Netherlands have the lion as their national animal, the name is quite fitting.

What is the benefit of this?

The LionLink could supply up to 1.8 gigawatts (GW), which means that the country can power at least 1.8 million homes. The countries will have better energy security in the future and this process helps with decarbonisation (lessening the amount of carbon released into the air).

Social Worker



Hi, I'm Ina!
I have been a social worker for 25 years. I have a wonderful family who are supportive of my work and who share my passion.

Layout by Chanel Roux

What is a social worker?

Social workers are trained professionals who help vulnerable individuals, families and communities with challenges they face in everyday life. This involves helping them access valuable resources to improve their health and well-being.

What does a typical day look like for you?

I work at a Community Centre in Pretoria West, and every day is different. Some days, we present programs that focus on skills development and family support. I also have individual sessions with clients to give them guidance on personal affairs. This can involve visiting them at home, gathering resources, and referring them to other professionals that can help with certain situations.

What are some challenges of your job?

South Africa has some of the best laws, but often fails to implement these due to systemic problems. We also have a lack of resources due to limited funding and lack of proper supervision at places of safety.

What qualifications do you need to do your job?

You need a 4-year degree in Social Work from a university. You can study further for your Masters and Doctors degree, but most social workers only have their B.A.(S.W.) degree and complete other short courses.



What is the most interesting part of your job?

I love planting seeds in people's lives to bring about change. Most importantly, I enjoy making constant positive changes on a small scale that bring about big change in the long run. Seeing these positive changes in people's lives is so rewarding! I have seen people start to believe in themselves, try out new skills and developing individual strengths that seemed impossible to them before.



I Ina's advice

Don't take failures personally – people grow at their own pace and this cannot be forced, even with the best of intentions.

Wearable Technology

Is this the future of fashion?

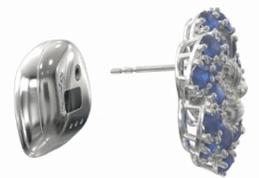
Words by Chanel Roux

Any technological device that you can wear on your body is wearable technology. These gadgets can be anything from jewellery and accessories, to clothes and medical equipment.



Here are some cool examples of smart fashion:

- **Smart jewellery:** Smart bracelets, wristbands, watches, and earrings can now do what your smartphone can do! They can take selfies, track your location, and play music.
- **Smart clothing:** Smart clothes can measure your biometric data, such as pulse rate, temperature, muscle stretch, heart rhythm and physical movement, and send these to your device! The properties of the fabric can even be changed to match your own style and what you are doing.
- **Smart glasses:** Imagine not needing to use your hands to look at notifications, snap some photos, search for something online, navigate, or send a message.
- **Handbags:** These new handbags have LED lights that shine when opened. You can also use them to play music, take pictures, record yourself, and charge your devices on the go!



?! Get this!

Contact lenses will soon be able to provide information to the human eye.

?! Get this!

In 1961, Edward Thorp and Claude Shannon invented a tiny, four-button computer that you could fit into your shoe or strap around your waist.



Budapest

Hungary



Words by Andrea Vermaak

I've always wanted to travel to Budapest, the capital city of Hungary in Central Europe.

It has such a rich history, amazing architecture and delicious food.



What's in a name?

Budapest was once three different towns: Buda and Óbuda on the west bank of the Danube River, and Pest on the east bank. The Chain Bridge was opened in 1849 to connect Buda and Pest. The three towns merged in 1873.

No one really knows where the original town names of 'Buda' and 'Pest' originated. Some believe that Buda was named after Bleda, its founder. Bleda was the brother of Attila the Hun, the leader of a great empire during the 3rd century.



Photo by Istvan Kadar Photography

The beautiful architecture of the Hungarian parliament is a must-see. It's the largest building in Hungary and third largest parliament building in the world. It houses the Holy Crown and other royal jewels.



Photo by Szechenyi Spa Baths

Budapest has the most significant number of thermal springs in the world! On a daily basis, 70 million litres of thermal water come up to the surface of the earth into the Budapest thermal springs.

A World Heritage Site to behold

The central area of Budapest is a UNESCO World Heritage Site. It includes Buda Castle, which was first completed in 1265 and was home to Hungarian kings. A Baroque-style palace was built between 1749 and 1769, but ruined during World War II. It was rebuilt, but in a simpler Baroque-style.

Shalom!

The Great Synagogue is Europe's largest (and the world's second largest) synagogue – a Jewish place of worship. It's not only beautiful, but super interesting. You get to learn about the history of Jews in Hungary.



The Shoes on the Danube Bank also gives a better understanding of Jewish history during World War II. The sculpture series of shoes remembers 3 000 people, including 800 Jews, who were killed on the riverbank during the war.



You can't visit Hungary without tasting some of the famous traditional food! We had doboš torta (sponge cake layered with chocolate buttercream and topped with caramel) for dessert. Yum!

SHAKESPEARE SAID WHAT?!

Whether you are a Shakespeare lover or not, you have most definitely used his lingo at some point. Let's have a look at some of the Shakespeare phrases we still use.

Words by Sulé Potgieter
Illustration by Benoît Knox

Star-crossed lovers

While this sounds unbelievably romantic, it actually means that a relationship was doomed from the very start! It comes from the idea that a malign (bad) star interfered in your relationship.

Jealousy is the green-eyed monster

When you have been bitten by the green-eyed monster, it means that you are filled with envy over what someone else has in their life. The worst part is that jealousy makes you feel sick to your stomach, and you eventually turn into a green monster.

All that glitters isn't gold

Just because something looks good, doesn't mean that it actually is. It's like dressing a monkey up in fancy clothes and sparkling jewellery – it doesn't mean the monkey is suddenly a distinguished gentleman! It is still just a monkey.

COME
WHAT
MAY

MAKES
YOUR HAIR
STAND ON
EDGE

FAIN
HEARTED

WHAT'S
DONE IS
DONE

FULL
CIRCLE

CRUEL
TO BE
KIND

IN A
PICKLE



FIGHT
FIRE
WITH
FIRE

HEART OF
GOLD

LOVE IS
BLIND

BREAK
THE ICE

COME
WHAT MAY

VANISH
INTO THIN
AIR

GOOD
RIDDANCE

OFF WITH
HIS
HEAD

Wild-goose chase

Going on a wild-goose chase means that you are trying to achieve something impossible. While a wild-goose chase certainly sounds...interesting, we all know that any human would come out of that fight with a few bites taken out of their arm!

A blinking idiot

By saying this, you are telling someone that they are being overly foolish and unhelpful. Calling anyone an idiot is already a massive insult, but a blinking one?! Brutal.

Something wicked this way comes

Who was green and nasty and got melted by a bucket of water? Why, the wicked witch of course! When you see something this awful on its way to you, you know that something bad is about to happen.

Wear my heart upon my sleeve

No, there will be no blood-pumping organs involved here, it just means that you are vulnerable and communicate your feelings very well. When people say you wear your heart on your sleeve, it usually means that you are not scared of fully experiencing your feelings.

Darkened CITIES

Paris, France
The City of Love

In 2010, Thierry Cohen started photographing cities without lights, or as he called it 'Villes éteintes'. He did this to show how beautiful the stars above these cities are when there isn't any light pollution.

Since only our presence is enough to cause light pollution, Thierry wanted to draw people's attention to the impact humans have on the planet. He wants us to start questioning the future of our cities and the overuse of energy.

What do you think it would be like to explore these cities in the darkness?



Amsterdam, the Netherlands

Venice of the North



Oh, Amsterdam! The perfect place for people who want to soak up culture. With the Vincent van Gogh museum open till late and concerts in the 'Concertgebouw', you'll definitely get your fill! #it'sgivingstarrystarrynight #goghhasomefun



Chicago, United States of America

Windy City

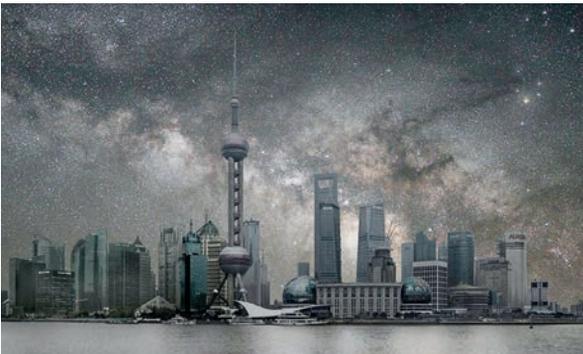


Whether the name makes you think about pizza or a one-woman show, Chicago is one interesting place! With a massive, shiny bean in the middle, who wouldn't want to visit this city?! #whoeversmellitdealtit #toomanybeans #whatdoyoubean



Shanghai, China

Pearl of the Orient



While it is usually beautifully decorated and alive with thousands of lights at night, the city of Shanghai looks quite peaceful here. #thispearlisonfire #cleanpearlaesthetic



Rio DeJaneiro, Brazil

Marvellous City



If you ever want to see the biggest carnival in the world, Rio is waiting for you. You'll see massive floats and beautifully dressed dancers doing the Samba! #sambaovertherainbow



San Francisco, United States of America

The Golden City



Traipsing around this city at night will definitely bring about an adventure or two. From ghost hunting to the Golden Gate Bridge, something will leave you breathless! #goldenghostbusters



Tokyo, Japan

The Big Mikan



Grabbing some late-night sushi on your way to some killer karaoke battles sounds like a dream! Luckily, this beautiful city offers exactly that... #you'reimkanmecrazy #thisplaceissushic



'Tender Eyes'

Photo by Tamara Blazquez Haik

This breathtaking close-up of a griffon vulture won first place in the 'Nature' category of the *National Geographic 2019 Travel Photo Contest*.

Not only are they impressive to look at, but griffon vultures are also the world's highest-flying bird! They have been documented reaching heights of over 10,973 meters above sea level. In order to fly so high, they have a special adaptation in one of their proteins, which allows them to fly efficiently despite lower pressure and available oxygen at great heights. They live to be around 40 years old.



10 endangered animals in South Africa

Words by Candice Robertson
Illustrations by Benoît Knox



When we think about endangered animals in South Africa, we often first think about rhinos... Like this orphaned baby white rhino.

But there are many other species of animals that are also facing extinction if we don't do something to help!

Let's learn more about these threatened creatures and the challenges they are facing.

?! Get this!

An endangered species has population numbers that are so small that it is at risk of extinction.

The Red List

The IUCN (International Union for the Conservation of Nature) has created a Red List which lists endangered animals, fungi and plants from around the world that face human-induced threats to their survival. This Red List is a critical indicator of the health of the world's biodiversity.



?! Get this!

Since the 1600s, more than 700 species of known plants and animals have gone extinct.



Least concern, but decreasing



Oribi

Oribis are the most endangered antelope in South Africa, and their numbers are still declining. Since they are specialist grazers and don't eat just any type of grass, this means that they are incredibly vulnerable to habitat loss and development.

Most of the oribi population lives on privately owned land, which makes it difficult to monitor and conserve them without the involvement of private landowners.

Threatened by: habitat loss, illegal hunting

Conservation efforts: The Oribi Working Group has been established within the Endangered Wildlife Trust to focus on their specific habitats and on conserving them.



Vulnerable

Blue crane

As South Africa's national bird, the blue crane is very special to us! They are endemic to southern Africa, and most blue cranes can be found in the Western Cape. Only a few birds have been found in northern Namibia and western Eswatini.

Threatened by: habitat loss, getting tangled in power lines, poison by farmers

Conservation efforts: The Endangered Wildlife Trust has an active African crane conservation programme and are working hard to implement ways of making power lines more visible to blue cranes.





Endangered IUCN Red List

Cape vulture

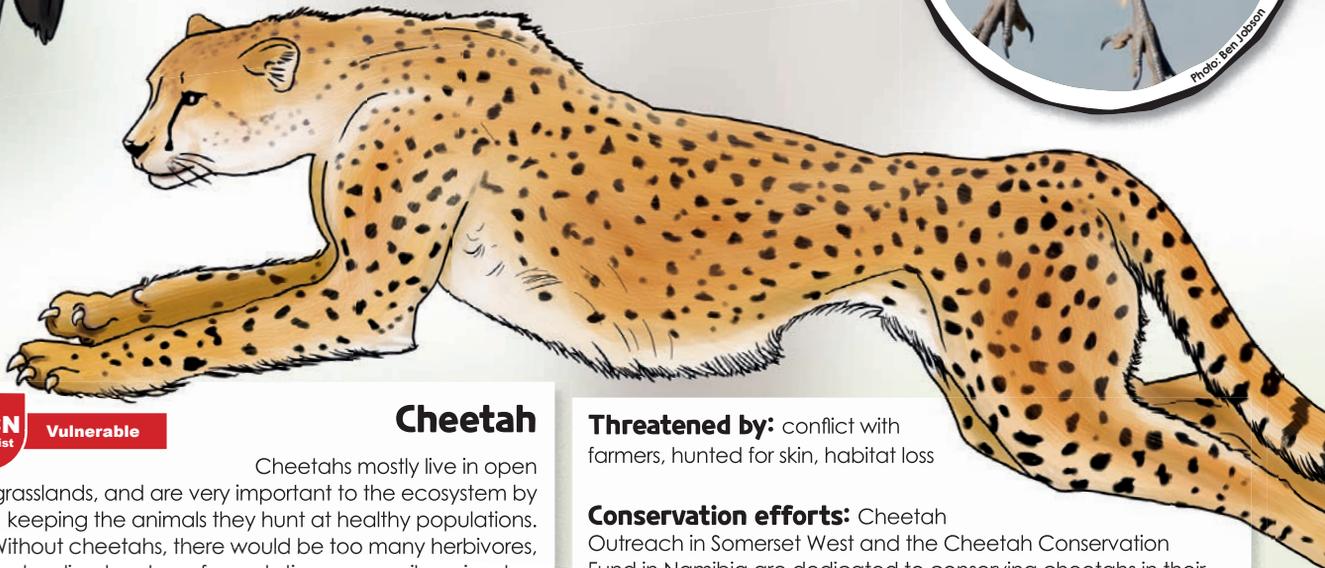
As nature's 'clean-up crew', vultures have an important ecological role to play. By eating carcasses, they help prevent the spread of disease and parasite build up. The Cape vulture is endemic to southern Africa, and lives mainly in South Africa, Lesotho, Botswana, and in some parts of northern Namibia. It nests on cliffs and lays one egg per year.

Threatened by: loss of habitat, electrocution by pylons or collision with power cables, poisoning

Conservation efforts: VulPro conserve, protect and raise awareness around Cape vultures. They also launched a breeding and rehabilitation project and the first captive-bred vulture chick hatched in September 2021 at the Johannesburg Zoo.



Photo: Ben Johnson



Vulnerable IUCN Red List

Cheetah

Cheetahs mostly live in open grasslands, and are very important to the ecosystem by keeping the animals they hunt at healthy populations. Without cheetahs, there would be too many herbivores, leading to a loss of vegetation, more soil erosion, less available water, and an unhealthy ecosystem.

Threatened by: conflict with farmers, hunted for skin, habitat loss

Conservation efforts: Cheetah Outreach in Somerset West and the Cheetah Conservation Fund in Namibia are dedicated to conserving cheetahs in their natural habitat.

Pickersgill's reed frog

Critically endangered IUCN Red List

The Pickersgill's reed frog is one of the most endangered amphibians in South Africa. They are found only along the coastline of KwaZulu-Natal, but their numbers are very low and spread out along the coast.

Threatened by: poor habitat quality, habitat fragmentation, ecosystem stress, pollution

Conservation efforts: two of the wetland areas where Pickersgill reed frogs live are currently protected. Also, South Africa's very first captive breeding project for the conservation of a threatened amphibian species has included the Pickersgill's reed frog.



Photo: Trevor Hatcher



?! Get this!

Amphibians are good ecological indicators. This is because they 'drink' through their skin, so they're susceptible to man-made changes in the environment.

African wild dog

Endangered

IUCN
Red List

African wild dogs are the second most endangered carnivores in Africa, after the Ethiopian Wolf. In South Africa, there are now fewer than 550 wild dogs roaming our wild spaces! They need large areas for their populations to be genetically diverse and sustainable, but decreasing habitat size means that they are now more often caught in poaching snares set for bushmeat, and killed by cars on roads in more highly populated areas.



Photo: Thomas Kersch

Threatened by: accidental and targeted killings by humans, viral diseases like rabies, habitat loss, and competition with larger predators like lions

Conservation efforts: The Endangered Wildlife Trust sponsors a monitoring and reintroduction programme of wild dogs into the Kruger National Park and Waterberg Biosphere Reserve.

Knysna seahorse

Endangered

IUCN
Red List

The Knysna seahorse is South Africa's only endemic seahorse and is one of only two endangered seahorse species in the world. They are naturally found in only three estuaries (the Knysna, Swartvlei and Keurbooms Estuaries). Within these estuaries, the habitats that they rely on, such as seagrass and algae, are under threat from sedimentation, boating activities, and coastal development.



Threatened by: habitat loss

Conservation efforts: SANParks are doing their bit to restrict further urban development around the Knysna estuary.



Photo: Brian Cranstone

Riverine rabbit

Critically endangered

IUCN
Red List

This little nocturnal rabbit can only be found in the Karoo. It is currently the rarest and most endangered mammal in South Africa! It only lives in the deep silt flood plains of seasonal Karoo rivers and can't be found anywhere else in the world, making it incredibly vulnerable to habitat loss.

Threatened by: habitat loss, hunted by domestic dogs, natural events like floods, fire and drought.

Conservation efforts: The Endangered Wildlife Trust runs a very active riverine rabbit conservation programme, and work with farmers to replant Karoo shrubs that provide food and shelter for these rabbits



Photo: Brian Cranstone



Endangered

IUCN Red List

African penguin

African penguins are the only species of penguin found in Africa. They are also endemic to the waters of South Africa, making them a special tourist attraction in our country. African penguins are also an important food source for sharks and seals, and act as predators to small fish such as anchovies and sardines. However, the African penguin populations have declined by 95% since the pre-industrial era.

Threatened by: oil spills, food scarcity from competition with local fisheries, warming ocean temperatures that cause fish to move away

Conservation efforts: SANCCOB, in collaboration with their conservation partners, are continually working to improve poor breeding habitats, predation, disease, and poor food availability threatening penguins in South Africa.



?! Get this!

A species is declared extinct after many years of not being spotted. Because it takes so long to define an entire species as extinct, there are probably many species already gone that we are unaware of.

Critically endangered

IUCN Red List

Pangolin

Pangolins are one of the most trafficked mammals in Asia and, increasingly, Africa. They are also the only mammals fully-covered in scales, which they use to protect themselves from predators in the wild.

Threatened by: hunting for their scales and meat, trafficking for believed magical properties

Conservation efforts: WWF, together with TRAFFIC, is working in Asia and Africa to protect pangolins and other species from wildlife crime, and reduce the demand for illegal wildlife products.



Why we need to conserve these animals

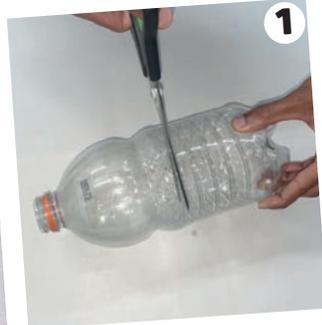
Healthy ecosystems depend on plant and animal species as their foundations. When a species becomes endangered, it is a sign that the ecosystem is slowly falling apart. Each species that is lost triggers the loss of other species. This is not only tragic for biodiversity, but also impacts the healthy ecosystems we need to purify our environments, which we depend on. Eventually, this will lead to unhealthy forests, grasslands, rivers, oceans and other ecosystems, and we will not have clean air, water, or land.

Make a Rabbit pencil holder

Transform an old cooldrink bottle into a friend to keep you company while you do your homework!

What you need:

- Paper (coloured or plain)
- Paint
- Cooldrink bottle
- Scissors
- Paintbrush
- Marker
- Glue



1 Cut the top part off of your bottle to make the body.



2 Draw some ears for your bunny on paper and cut them out.

!! Warning

When you cut the bottle, ask an adult to help you.



3 Paint the bunny's body and its ears whatever colour you like.



4 As soon as the paint is dry, stick the ears to the inside rim of the bunny's body.



5 Draw a face on the bottle and enjoy your new homework companion!

?! Pro Tip!

Use acrylic paint to paint the bottles. It sticks to the bottle much easier than other paints!

Would you have survived on the Titanic?

Words by
Candice Robertson

On the night of the 14th of April 1912, around 2 200 passengers travelled through the freezing waters of the North Atlantic Ocean, unaware that they were heading straight for looming danger. They were aboard what is now known as the most famous ship in history – the Titanic.

?! Get this!

Titanic was also known as the 'Ship of Dreams', and White Star Line claimed she was the safest ship of all time.

The Titanic was built in 1912 by a company called White Star Line. The ship took three years to build, and was no ordinary ship! The Titanic was the most impressive and luxurious ship ever made until that point, as well as the biggest.

?! Get this!

The most expensive tickets to travel aboard Titanic cost about R1.9 million in today's money!

On 10 April 1912, the Titanic set out on her maiden voyage (first big journey), from Southampton, England to New York, USA.

?! Get this!

Boats are traditionally referred to as 'she'.

Life aboard the Titanic depended on who you were and how much money you had. The wealthiest people travelled in first class, and enjoyed expensive food and access to all of the ship's facilities, like cafés and swimming pools. Second class and third class were less fancy, and enjoyed less perks.

?! Get this!

As well as passengers, the ship carried nearly 3 500 sacks of letters, packages and documents.



On day five of the Titanic's journey, just before midnight, an iceberg loomed out of the darkness. Since the ship was too big to quickly change direction, the Titanic scraped along the side of the iceberg, tearing holes in its side.

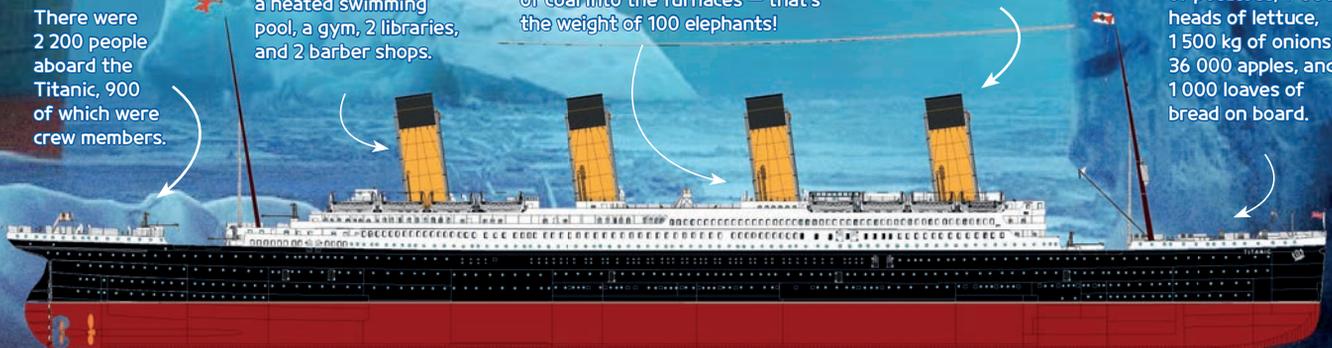
To feed the passengers and crew, the Titanic had 39 000 kg of meat, 40 000 eggs, 40 tonnes of potatoes, 7 000 heads of lettuce, 1 500 kg of onions, 36 000 apples, and 1 000 loaves of bread on board.

There were 2 200 people aboard the Titanic, 900 of which were crew members.

The Titanic had 4 lifts, a heated swimming pool, a gym, 2 libraries, and 2 barber shops.

The Titanic was powered by 3 coal-burning engines. Each day, 175 'fire men' shovelled 600 tonnes of coal into the furnaces — that's the weight of 100 elephants!

The ship's top speed was 24 knots (around 44km/h).



The Titanic was 28 metres wide, 53 metres tall and 269 metres long — that's about the length of three football fields!

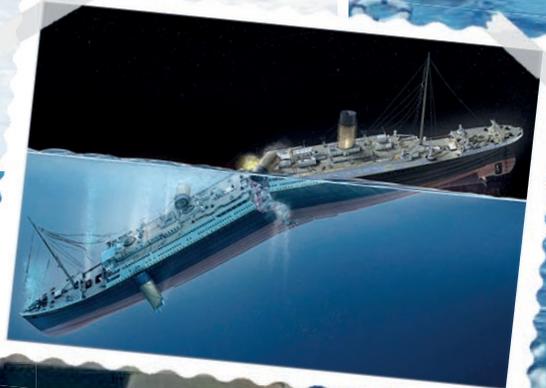
After hitting the iceberg, the captain knew that the Titanic would sink in just a few hours. Distress signals were sent out to nearby ships, and passengers were ordered to get to the lifeboats.

But, the Titanic only had 20 lifeboats – only enough for half of the passengers on board. The nearest ship was almost four hours away.

?! Get this!

In the -2°C waters, most passengers who went into the sea would have died from the cold within 15 minutes.

As the Titanic sank, the bow (the front) went down first, causing the stern (the back) to rise out of the water and into the air. This tilt caused the ship to break in two, sending all those still on board into the freezing cold ocean. Only 700 passengers survived.



Would you have survived?

Now that you know more about this incredible ship and its tragic tale, here's the big question: if you had been on the Titanic, would you have survived? Well, it all depends on who you were...



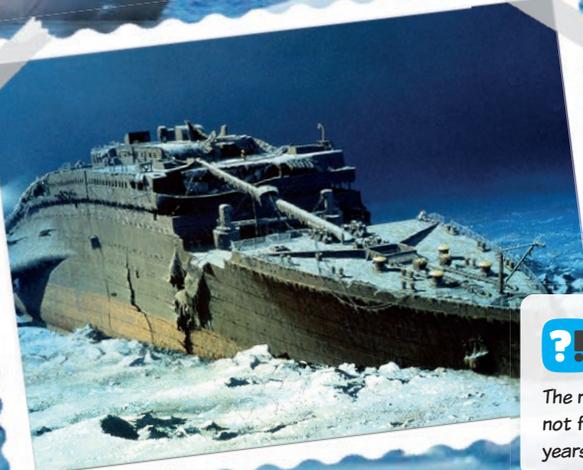
1 You were a woman or child.
Women and children were allowed to board the lifeboats first.

2 You were rich.
First-class passengers were lucky – their cabins were on the upper decks, closest to the lifeboats.

3 You obeyed orders.
People who got into a lifeboat as soon as the crew told them to, survived.

4 You were brave.
Many people were too scared to leave the big ship for the tiny lifeboats. Others stayed on board because they didn't want to lose sight of their friends or family.

5 You had stamina.
Some survivors were plucked from the icy water after hanging onto bits of floating wreckage for more than half an hour after the ship sank.



?! Get this!

The remains of the Titanic were not found until 1985, about 73 years after it had sunk!

?! Get this!

The longest living survivor from Titanic was Millvina Dean, who lived to be 97 years old. She was just a baby when she, her mother and brother made it into one of the lifeboats.

COOL FACTS ABOUT GLACIERS

Words by Elaine Carr & Chanel Roux

The Earth's climate is constantly changing. During the Ice Age, glaciers were everywhere and dinosaurs roamed the lands! Now, dinosaurs have been extinct for quite some time. Luckily, even though we don't have dinosaurs, we do still have glaciers. Let's learn more about these fascinating rivers of ice.

GLACIERS TAKE HUNDREDS OF YEARS TO FORM

A glacier is formed when old snow, that has collected over many years, is compressed and turns into 'firn'. This is a dense, compressed layer of ice, with trapped air bubbles inside of it. As more firn gathers, it becomes large and very heavy, and it starts moving or 'flowing' downward and outward to form a glacier.

?! Get this!

During the last glacial period, a large part of the Earth was covered by ice sheets.

GLACIERS ARE HUGE!

Glaciers can grow to be hundreds of kilometres long, because the process just keeps going! The largest glacier in the world is called the Lambert-Fisher Glacier in Antarctica. This glacier is also one of the world's fastest-moving ice streams. It is approximately 400km long and 100km wide! 'Small' glaciers are about the size of a rugby field.

This Antarctic iceberg, officially known as A-68A, is around 152km long and 48km wide. That's almost as big as the South Georgia Island that the iceberg is heading towards!

Photo: Darrell Gulin

?! Get this!

The minimum size requirement to be considered a proper glacier is 0,1km².

GLACIERS HOLD MOST OF THE WORLD'S FRESH WATER

Glaciers hold about 69% of the fresh water on Earth. Most fresh water is trapped in the Antarctic and Greenland ice sheets. As a result, glacier ice is both the largest freshwater reservoir (body of water) and the second largest water reservoir on Earth.

GLACIERS ARE EVERYWHERE

Glaciers aren't just at the North and South Pole – you can find them on almost every continent! Australia is the only continent without any glaciers. This is because glaciers form in places where the summer heat isn't enough to melt the snow that fell in the winter.

Mount Kenya

?! Get this!

The Rwenzori Mountains, Mount Kilimanjaro, and Mount Kenya are all African glaciers.

Mount Kilimanjaro

GLACIERS APPEAR BRIGHT BLUE IN COLOUR

Pure glacier ice looks blue! It has very few air bubbles in it, because the weight of the ice has crushed out all of the air. Pure ice has mineral-like qualities, like sapphires. Glacial ice reflects the blue colours of the light spectrum, allowing the lovely blue colour to reach our eyes.

GLACIERS ARE ACTUALLY FLOWING RIVERS OF ICE

Glaciers 'flow' like very slow rivers, which is why they are called rivers of ice! Although glaciers move very slowly, they are mighty giants. When a glacier is moving, one side always looks like it's sinking into the water – this means that the glacier is actually moving in the direction it's leaning towards!

?! Get this!

Glaciers can move anything from 30m a year to 30m a day!

THERE ARE DIFFERENT TYPES OF GLACIERS

Alpine glaciers, also known as mountain glaciers, are surrounded by mountainous terrain. Almost every continent has Alpine glaciers in its mountains. Continental ice sheets are glaciers that cover more than 50 000km². As they grow and reach the ocean, they become ice shelves (since they are still attached to the land).



Photo: Getty Images

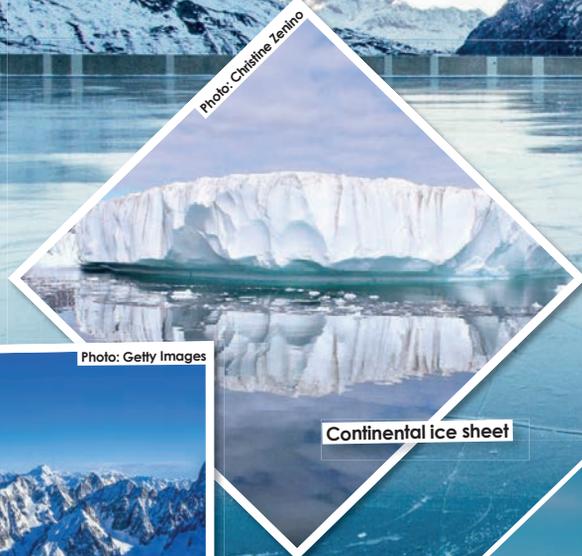


Photo: Christine Zenino

?! Get this!

The only ice sheets that still exist are those in Antarctica and Greenland.

?! Get this!

There are about 100 000 glaciers in Alaska.

GLACIERS TELL A STORY

Glaciers can tell us a lot about the past. Scientists can look at the air bubbles trapped in glaciers for interesting information about what life was like centuries ago. They can tell what temperatures used to be like, how much carbon was in the air all those years ago, and even what type of vegetation was growing then!

?! Get this!

Scientists believe that there were once glaciers on Mars.



Photo: Eiling Ulrik Wommer, Oppland County Council

Melting glacial ice revealed this 1500-year-old Viking arrowhead that had been frozen for thousands of years!

?! Get this!

If all ice on land melted, sea levels would rise by approximately 70m worldwide.

?! Get this!

The lowest end of a glacier is called a snout, terminus or toe.



A glacier toe

Photo: Tim Bartholomaus

GLACIERS MOVE THINGS

Glaciers carry things as they move. Because they are so big and powerful, they do not just slide over the ground and leave it unaffected. They move everything in their path, including rocks and soil, and make paths as they move. Often, things also get caught up in the ice and get carried along that way.

GLACIERS MATTER

Since glacier surfaces are so brightly white, they reflect the rays of the sun and help cool our planet down a bit. Glacier melt also delivers nutrients into lakes, rivers, and oceans. But, if glaciers lose more ice than they can gather through new snowfall, the water they add to the oceans leads to a rise in sea levels. This makes coastal areas vulnerable to flooding, coastal erosion, and can even effect the pH of the ocean – which is bad for sea life and coral reefs.

The effect that these monstrous pieces of ice have on our climate is absolutely shocking! From rising sea levels to helping cool our planet down, glaciers deserve a lot more recognition!

BOERESPORT

GAMES WITH HERITAGE

Words by Sulé Potgieter
Illustrations by Benoît Knox

When we look back at the time of the Voortrekkers, it's difficult to imagine them having the time to play and have fun. Luckily for us, they left us with an absolute gem called boeresport! Let's have a look at some of these awesome activities!



The first wave of Voortrekkers lasted from 1835 to 1840.

?! Get this!

There is a world bokdrol spoeg championship every year! It started in 1994.



?! Get this!

This wacky sport was started by hunters, who 'retaliated' against kudus by spitting their own droppings at them, just because they were difficult to hunt.

Bokdrol spoeg

This is definitely the strangest of all the sports! When you're out on holiday and you spot some dried bokdrolle, or Kudu droppings, seeing who can shoot them the furthest makes for a very exciting game! But here's the catch – you have to shoot them from your mouth!



Drie blikkies

This high-stakes, balancing game starts with everyone standing spread out around three cans stacked on top of each other. The bowler tries to knock the cans down with a ball. As soon as the cans are down, the bowler runs to restack them before the other players can get to the ball to tag the bowler with it. If the bowler is tagged before they can restack the cans, they are out.



?! Get this!

To keep themselves busy, travellers from before the 1800s used the keys from the yoke of ox-drawn wagons to play.

Jukskei

If you want to practice your hand-eye coordination, this is the sport for you! Start with two skeys that are shaped like bottles – their weight completely depends on how strong you are and what you can manage to throw! The players of two teams take turns to throw their skeys at the other team's pens, that are poking out of the sand. The team with the most pens knocked over wins the game.

Kennetjie

To play, you'll need two sticks, a long one and a short one. The shorter stick, the kennetjie, lies over a hole in the ground. The first player takes the long stick and hits the kennetjie as far as possible. If someone can catch the kennetjie before it hits the ground, they try to throw it into the hole to get the batter out. Depending on where the kennetjie lands, the batter's next hit could be anything from balancing the kennetjie on their hand to balancing it on their chin before throwing it in the air and hitting it!

?! Get this!

School children were banned from playing kennetjie at school because it is quite a dangerous game.



Rekspring

"England, Scotland, Ireland, Wales, inside, outside, inside, on".

To play, all you need is a long piece of elastic band tied together at the ends. Two players will stand inside it with their feet spread apart. The first jumper will start by jumping with both legs inside, then both legs outside the band. They keep jumping as the song goes on, and when they hear 'on', they jump with both their feet onto the rubber band, ending the round and moving on to the next. With each round, the band gets pulled up higher around the first two players' bodies until no one can make the jump.

?! Get this!

Although rekspring is seen as boeresport, it is also popular in France!

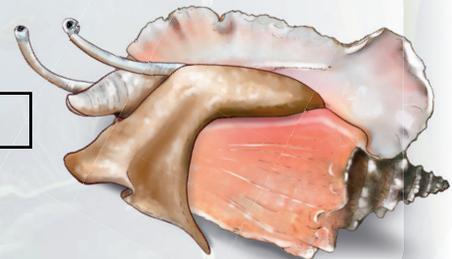
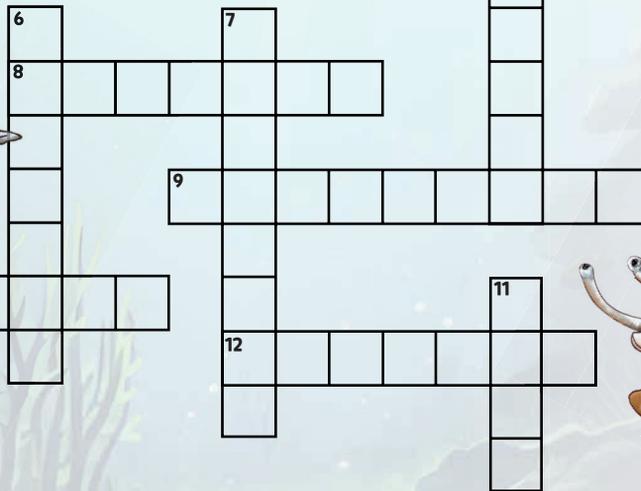


Word Wonder



How to play

Use the clues on this page to fill in the crossword puzzle and test the knowledge you have gained in this issue!



Down

1. What frenzy did Franz Liszt's fans go into when he performed?
2. What was Shakespeare's first name?
4. Glaciers hold most of the world's ____ water.
6. What do we call the fastest land animal?
7. What mammal is covered in scales?
11. What animal drinks water through its skin?

Across

3. The slowest fish in the ocean is called the ____ horse.
5. Interconnectors help share electricity between ____.
8. Budapest is the capital of which country?
9. The ancient ____ were the first people to use salt to preserve food.
10. The African penguin is also known as the ____ penguin.
12. What did the Titanic hit on its very first trip?

Test yourself

How much did you understand about glaciers?



Read the article, *Cool Facts about Glaciers*, on page 34-37.

Then, answer the following questions from the text.



1. Read the sentences below and write if they are **true** or **false**.

a. Glaciers are made of frozen sea water. _____

b. Glaciers store most of the world's fresh water. _____

c. Australia is home to many glaciers. _____

d. Glaciers are frozen and cannot move. _____

e. Glaciers cool the Earth by reflecting the sun's rays. _____

2. Use the words provided to fill in the blanks.

Glaciers are like rivers of _____ made up of _____ layers of snow. They are found on most _____ as _____ glaciers or continental ice sheets. They protect the Earth by keeping it _____, but they are at risk from _____ change.

- cool
- continents
- layers
- Alpine
- compacted
- ice
- climate

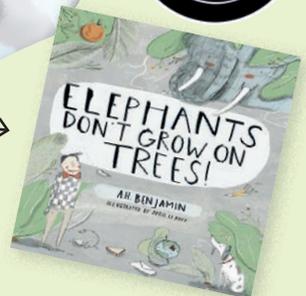


Reading Tip

Reading makes you smarter – it's a fact. Be sure to keep up good reading habits:

- Read anything
- Find a topic that excites you
- Read something difficult sometimes
- Ask someone to recommend a book
- Talk about the things you've read – reading is contagious!

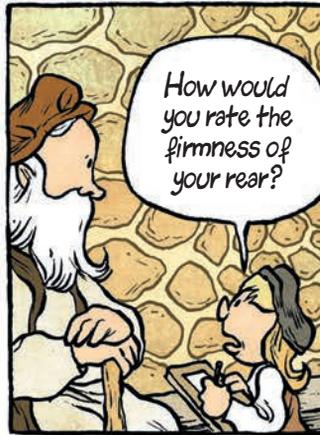
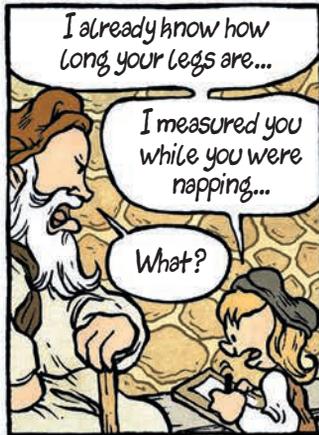
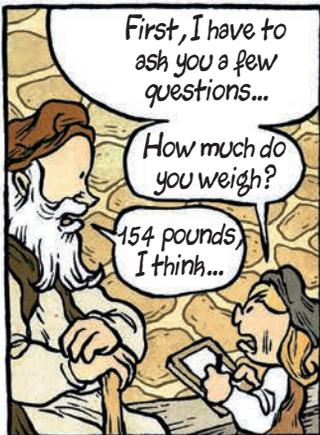
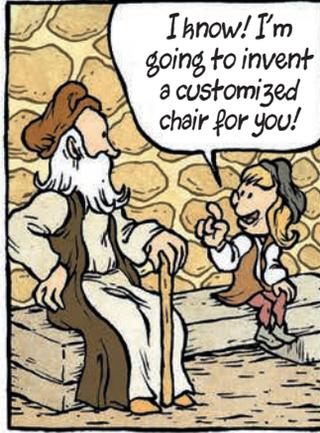
Here's a fun new book to read!



Available now
Bookshoponline
 SHOP.3KPUBLISHING.CO.ZA



The chair



How do I juggle it all?



Sean 13 years old

Between the sports I play, cultural activities at school, keeping up with my hobbies and trying to get good marks, I don't know how to balance it all! I don't want to give up any activity, but I don't know how to juggle everything.

Balance is part of having a healthy lifestyle. And the most important part of being balanced is knowing what is worth holding on to!

Participating in lots of activities is fun and fulfilling, but it can also make you feel stressed and overwhelmed if you are taking on too much! A jam-packed schedule could also lead to you not being able to give your best in every area. So, it's important to take some time to think about the activities that you really enjoy and that are

most important to you. Talk to your parents or teachers for advice on how to prioritise the activities that you feel are important. This way, you can set realistic expectations about how to juggle your schedule. Also remember that it is important to have some free time to relax and reset.

Have a question for Candice?

Do you have a burning issue on your mind? Need advice? Send your questions to supernova@bkpublishing.co.za and Candice could give you advice next!

ENTER & WIN

SA HOMESCHOOLING AND BEYOND'S 2023 DRAWING COMPETITION

It's our 2023 Drawing Competition!

This initiative is aimed at encouraging children to express themselves through drawing, inspiring creativity, stimulating the imagination and encouraging artistic skills. There are four age categories, all with the same theme.

Theme: Why I love South Africa

**5-8 years, 9-12 years,
13-17 years and 18-21 years**

Entries must be e-mailed to:
sahomeschooling@isikhova.co.za
with "Drawing Competition"
clearly stated in the subject
line along with:

**Your full name
Contact number
Child's name and age
Title of drawing**

The competition will run for two issues, this being the first. Every fortnight we'll post a section of entries from each category on our social media pages. Winners' names will be announced in our last issue of the year, online in November.

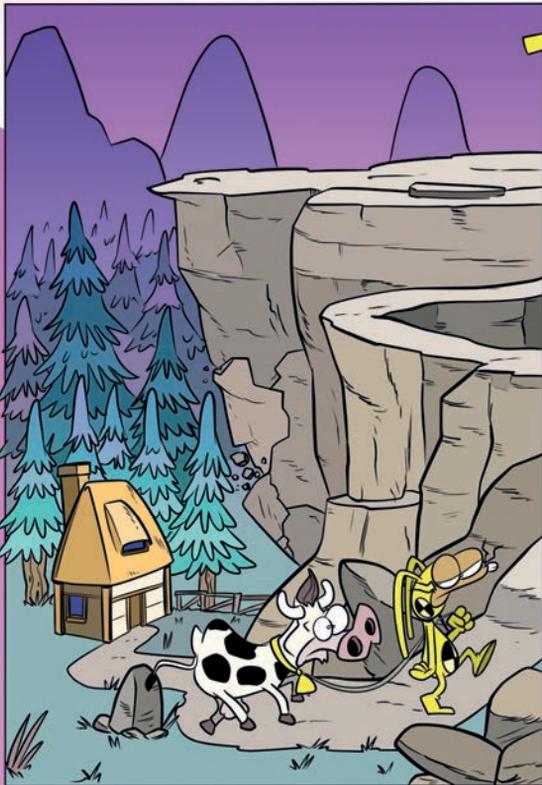
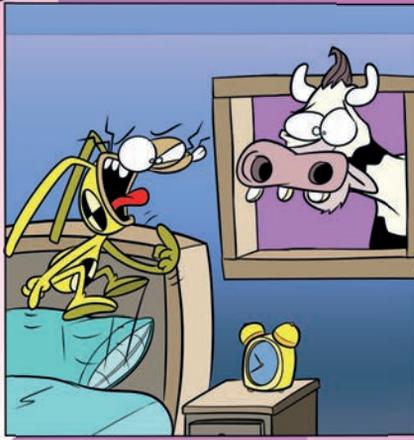
**Follow us on
social media
for more on the
exciting prizes
up for grabs**



DOCTOR RIP EXPLAINS



MEEUH!



ON 13 JULY 2013, JOÃO MARIA DE SOUZA, A 45-YEAR-OLD BRAZILIAN, WAS KILLED IN HIS SLEEP BY A FLYING COW.



THE COW, WHO HAD BEEN BROWSING ON A HILL OVERHANGING HIS HOUSE, SLIPPED AND FELL THROUGH HIS ROOF.



SHE WEIGHED OVER A TONNE!

THE MAN SUSTAINED AN INTERNAL HEMORRAGE AND DIED IN HOSPITAL.

ODDLY, THIS WAS THE THIRD ACCIDENT OF THIS KIND IN THE REGION IN ONLY THREE YEARS, BUT THE FIRST TO BE DEADLY.



MARINE ANIMALS

THE COMIC

Dolphin sonar

