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10
YEARS
super
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The mag for curious kids



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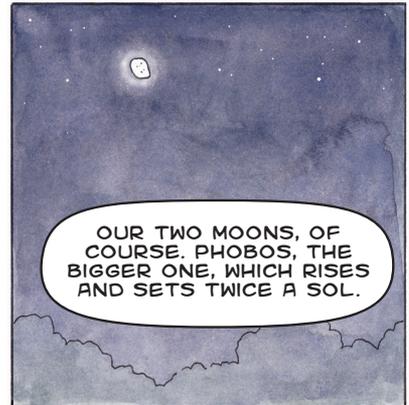
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Story and artwork
Maya LeMaitre

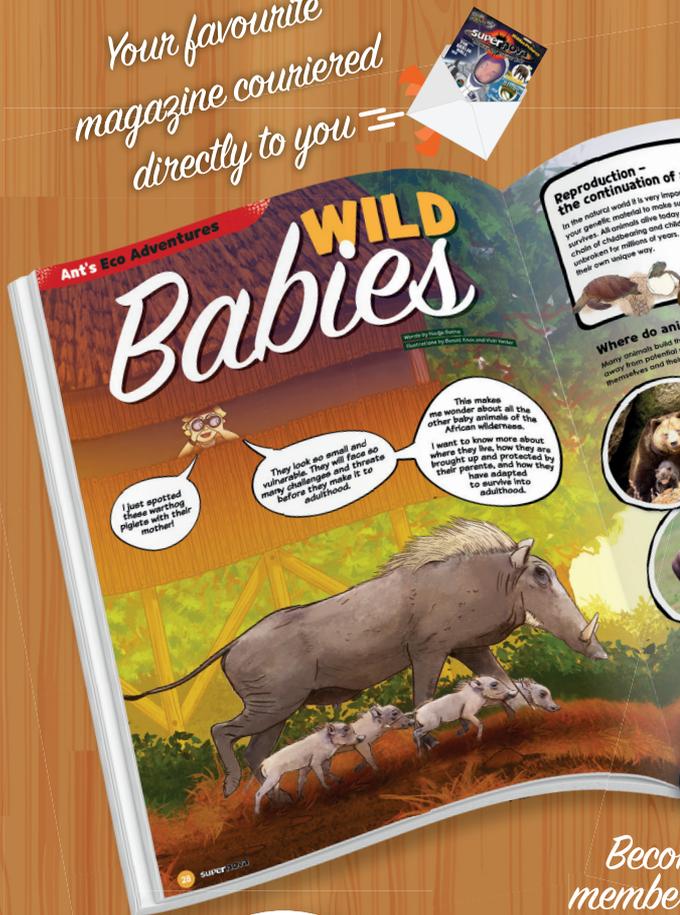
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Hi SuperKids



Candice

Welcome to our 55th issue and the beginning of Volume 10! Our *Supernova* team is so excited to bring to life all of our new ideas, stories and creations for you to enjoy!

This issue also marks our 10th year of publishing *Supernova*... so 'Happy Birthday' to us! Our founder, Benoit, created the magazine in 2011 with a spectacular vision of creating eye-opening content for the curious kids of South Africa to enjoy. Within the magazine, we've travelled far and wide across the globe (and across South Africa!), learnt about many awesome animal species, created some mind-boggling crafts, been in touch with different cultures, and learnt about worlds beyond our planet – just to name a few. So far, *Supernova* has been enjoyed by over 44 000 people!

Over the last 10 years, it has been incredible to see our magazine grow, change and evolve into what it is today. This definitely wouldn't be possible without the awesome team of creatives that have left bits of themselves in every issue for you to find. Check out our Chatroom section for a trip down *Supernova's* memory lane. These are only some of the people that have helped make *Supernova* the best kids' mag in SA!

We hope you enjoy this special first issue of SN's Volume 10. Here's to the next 10 years of *Supernova*, and to always being a curious kid!

Get to know the Supernova Team!



Siya
Operations Manager

If you could meet anyone from history, who would it be and why?

Malcolm X. He was a volatile yet very intelligent being. But honestly, I just really want to ask him if it's okay if I snatch the 'X' last name from him!

Hey SuperKids! I'm Siya! I handle the operations, marketing and sales of *Supernova* in efforts to make sure that each issue of *Supernova* is sent to our lovely subscribers every two months.

If you had to eat only one food for the rest of your life, what would it be?

Watermelon.

What's your favourite thing about being at *Supernova*?

I love the fact that *Supernova* and being part of the team brings out the potential in everyone. I also get to learn something new, fun and interesting every single day.

What is something that everyone looks stupid doing?

Trying to scratch an itch on your back.

If you were an animal, what would you be?

A tiger! They're ferocious but majestic.

In my spare time, I love to learn new skills and improve myself.



Visit our stands at the KidsCon and HobbyX expos! I love sharing the *Supernova* story with new subscribers.



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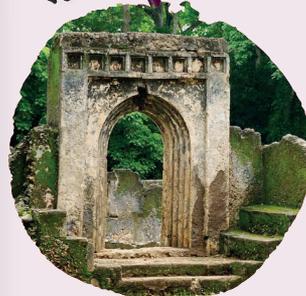
28 10 Animals Up Past 10

At sunset, most animals head for the safety of their den, burrow or nest. But, some animals are just waking up! Find out how these nocturnal animals are specially adapted to finding their way around in the dark.



33 Make your own shadow puppet

Have fun with shadows and create your very own nocturnal animals to bring those night scenes to life!



34 Ancient Ruins of Africa

Many people think about the pyramids, the Colosseum or medieval castles when they think about ruins. But, these ancient ruins of Africa have great stories to tell about the advanced and prosperous people who lived there.

The Language of Time 40

Every day, we use terms like today, soon, now, and weekend. But, do you know where these terms come from and what they mean?

Hint: there are nymphs, gods, kings and donkeys involved!



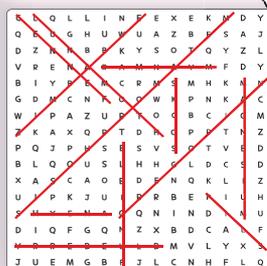
44 Know Your Knots

There are hundreds of ways to tie a knot. Some can be used in survival situations, and some are just useful to know. Here's a rundown of the four knots we think every Supernovan should know.

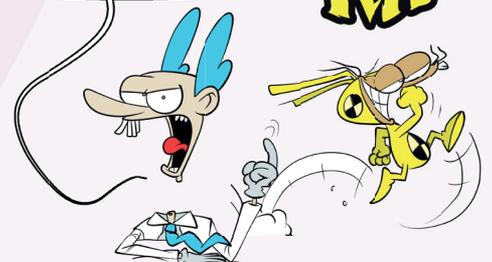
49 Meet the characters

Introducing our new comic series...

Answer for Brain Games on page 48.



I'M DR RIP. I KNOW A FEW THINGS ABOUT DEATH. DARWIN HERE AND I ARE GOING TO FILL YOU IN ON ALL OF THE SURPRISING STATISTICS AND DETAILS ON THE DIFFERENT WAYS TO BITE THE DUST.



KATHLEEN (19)

from Menlo Park asked us:

Ask Jules?



Is a banana really a berry?



Jules

What an ap-peeling question to ask, Kathleen! Not all fruit is as it seems, especially when berries are involved. Yes, a banana is actually a berry! How we use the word 'berry' is very different from the scientific or botanical definition of a berry. Technically speaking, a 'berry' is a botanical term for a fruit that grows from the ovary of a single flower and has an edible fleshy outer layer.

In order to be classified as a berry, a fruit must have three layers of flesh – an outer layer, a soft and sweet middle, and a layer of one or more seeds. A banana's seeds are so small that most people don't even realise that it has seeds! Ancient wild varieties of bananas had large black seeds, but the ones we buy now at the supermarket have been grown to have smaller seeds.

So, bananas, cucumbers, tomatoes, watermelons, and avocados are all berries, however strawberries, raspberries, blackberries, and mulberries aren't even berries at all. How berry- confusing! The only fruit with 'berry' in its name that is actually a berry is a blueberry. The only true berry – the truest, bluest berry of them all!

Reader Corner

Playful Poems from a Poetry Pro

Supernova reader, Liah Riston (11), sent us a collection of her fantastic poems to read through. From the 24 poems that she sent us, we had to narrow it down and chose some of our favourites. Boy oh boy, was that tricky. But, here are two of our editor's favourites for you to check out!



Jules

Send your cool creations to supernova@bkpublishing.co.za and you could be part of our Reader Corner!

Flip-flop-flips

We're going to the beach today.
I need to pack my things.
I need to pack my swimming costume
and the rubber rings.

I need to pack my flip-flops
for the swimming pool...
...but why can't they be 'flop-flips'?
Who decided that rule?

It's really getting on my nerves
that something can't
change.

In fact, this whole flip-
flop thing
is already getting
strange.



A Dinosaur in my Shoe!

My feet are getting sweaty,
I'll take my shoes off now.
But what is that on the sole?
Is it a... green cow?

Wait a minute... wait right there...
I think it's something blue.
No... it's green... wait... is it...
a DINOSAUR in my shoe?!

But those things went extinct
a quizzillion years ago!
But what about the dinosaur?
Oh great... OH NO!!

Supernova fan with super talent

Combine passion, talent and a love for art, and you get Khotso Chabalala. Khotso is a participant of this year's **OPTOG! National Art Competition**, a local art competition in Pretoria. He took a leap of faith by entering his self-portrait artwork, under the theme "My world". To accompany his artwork, Khotso wrote a beautiful description about

his world: "I am trying to show how this young man experiences his world with his expression. Taxi's hooting, music, children screaming and laughing and crying, mothers shouting, stray dogs barking, chickens, bells of cows grazing, 3 am vuvuzela's blown by bangalalas keeping early morning workers safe. The smells of fires, garbage, frying vetkoek, braaied meat. Warm bodies in taxi's, cold water. Pap, kota's, sweet tea. Young men in groups, clothes on wash lines, clean swept yards. Hunger, fear, sometimes hope.

This is my world. It is right next to yours."



Creature FEATURE

Found only in North America, the luna moth is one of the most stunningly beautiful moths in the world! This eye-catching critter is easily recognizable because of its pretty wings. 'Luna' – meaning moon – is an appropriate name for this moth because of the moon-like eyespots on its wings (and because they are most active when the moon is at its peak). While their bodies are tiny, they have an impressive wingspan of up to 12cm!

Like any insect from the Lepidoptera family (which is also the family that butterflies and skippers belong to), the luna moth undergoes a very cool metamorphosis during its lifetime. The luna moth starts out as a very hungry caterpillar, and munches on leaves of walnut, hickory, sweet gum, and paper birch tree. After a month of filling up on these plants, the caterpillar builds a cocoon, which it lives in for about three weeks before emerging as a moth.

After leaving the cocoon, the luna moth only lives for about a week since it has no mouth or digestive system, and cannot eat. During its seven days of life, it breeds and the female moth places her eggs.



Photo: Kurt Andreas



Photo: Matt Jeppson



Fanny Mendelssohn

The genius with a famous brother

Fanny was born in Hamburg, Germany, on 14 November 1805 and learned to play the piano when she was a child.

She was such an impressive young musician that the composer Carl Friedrich Zelter said of her: "This child really is something special".

Despite their comparable musical talent, her younger brother, Felix, was encouraged to play music more than Fanny while growing up.

Her '1829 Easter Sonata' was also originally credited to her brother. It was signed 'F. Mendelssohn' and everyone automatically assumed that it was written by Felix. Years later, it was revealed that it was actually written by Fanny.

Fanny published some of her works under her brother's name.

When Felix visited Queen Victoria, she praised one of his musical pieces. Awkwardly, he was forced to admit that he hadn't actually written it; Fanny had!

Fanny wrote 460 musical pieces and was also a conductor.

She wrote her own music for her wedding to Wilhelm Hensel the night before the ceremony.

She named her son Sebastian Ludwig Felix Hensel after her three favourite composers: Bach, Beethoven... and her brother.

At the age of 40, she finally decided to go against her brother's wishes and started publishing music under her own name.

Her death was sudden, and when she was 41, she had a stroke while conducting a chorus at her house that had been written by Felix.

Do you
want to be a
musician?
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and talk to an
expert.

Video Editor



Hi, I'm Jeannine! I am a video editor and director for a television programme called *Fiësta* on kykNET (DSTV channel 144). I also edit other programmes and corporate videos. I love working, reading, laughing and watching series on Netflix.

Layout by Su-Mia Hoffmann

What is a video editor?

A video editor manipulates and arranges video shots. I use footage, sound and graphics to tell a story and inform viewers.

What does a typical day look like for you?

On a normal day, I receive digital footage that was filmed by the team and load it into my video editing software. I work through the material and decide what to cut down. Sometimes, I need to cut four hours of footage to make a programme of 22 minutes! Then, I arrange the interviews and add other shots to make it look pretty.

What qualifications do you need?

Many people study video production and editing at places like Open Window or AFDA. But, editing is actually something that you can teach yourself! There are many great tutorials available online. Keep in mind though that editing is easy to do, but it's not always easy to do it well.



What is the most interesting part of your job?

When I am working, it's mostly just me and the footage. But I definitely don't feel alone! I get to know the people whose interviews I am editing, and I learn about so many different things that I wouldn't have been exposed to if I didn't edit that specific programme.



What are some of the challenges of your job?

I have a weekly deadline and it becomes challenging when you get the material late. Another challenge is long hours. Sometimes, you have to problem solve when you get bad footage or if it has bad sound quality!

J Jeannine's advice

Make sure you enjoy working with video and try to shadow an editor before you make a decision. If you do decide to become a video editor – enjoy it! It is a fantastic job.



Around the world in 10 years

Andy's Top 10 Travel Destinations

Words by Andrea Vermaak
Layout by Candice Robertson

Wow, it's been such a privilege to visit so many wonderful places! I've met many amazing people and learnt many interesting things!

It's very difficult, but if I had to pick my top 10 destinations, I'd pick these. I knew the least about these places, so they made me want to travel and learn more.



Photo by Alex Ishchenko



Standing proud beneath the snow-capped peaks of Mount Ararat is the Khor Virap church. This is where the country first adopted Christianity in 301 AD!

Armenia

It may be a small West Asian country, but Armenia is unique in so many ways. Armenia has a unique alphabet that was invented as long ago as 405 AD. There are also crosses carved into rock called khachkars, which can only be found in Armenia. Each cross is different and they are included on the UNESCO list of Intangible Cultural Heritage.

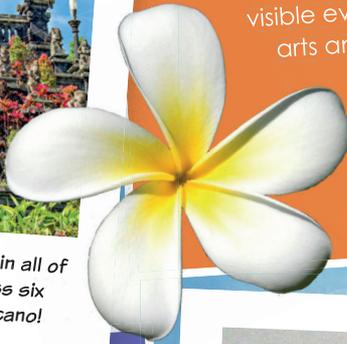
Bali

I absolutely adore this beautiful Indonesian island! Kadek, whom I met in Bali, taught me so much about Balinese Hinduism. Their beliefs are visible everywhere, from their customs to the arts and architecture. I also got to see the famous Tegalalang Rice Terrace that are grown using a traditional irrigation system. I also visited Pura Tanah Lot, a temple built on a large offshore rock formation.

Photo by Peerapat

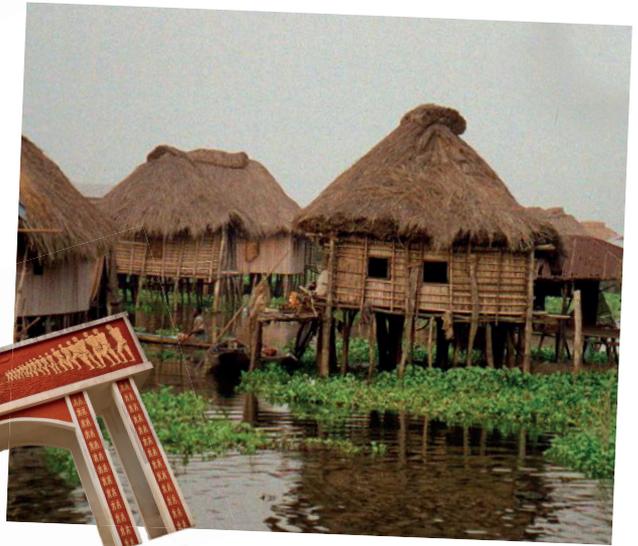


The Besakih Temple is the largest and holiest temple in all of Bali. It is made up of 20 individual temples split across six terraced levels on the slopes of the Mount Agung volcano!



Benin

The history of the Republic of Benin intrigued me the most. Though deeply sad, it's inspiring to see how far Benin has come. Benin was once a French colony known as Dahomey. Local kings sold their captives to European slave traders between 1472 and 1885. I visited the Door of No Return in Ouidah, a memorial arch to those who were shipped from 'the Slave Coast' to the Americas. It may be the saddest I've ever felt while travelling, but it also gave me hope because slavery ended.



The village of Ganvie in Benin is Africa's largest town on stilts. The bustling town has over 30 000 residents!

Photo by Thomas Barrat



Like anything great, the Easter Island heads took some time to complete. Apparently, each statue was made by teams of five to six men using stone chisels and took about one year to complete. There are 887 known statues.

Easter Island

I was so excited to see the Moai statues, commonly known as the Easter Island heads. There are about 1000 Moai statues that form part of a prehistoric monument. The Rapa Nui, native islanders, carved the statues from large rocks made of compressed volcanic ash around 1400 to 1650 AD. They were carved in honour of chiefs and other important people who had died.

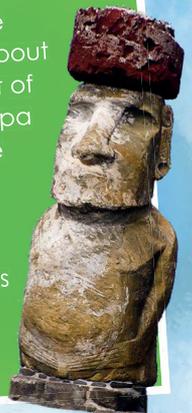




Photo by Adellyne

The Jökulsárlón Glacier Lagoon is one of Iceland's most popular attractions. Chunks of ice float over to a nearby beach called 'Diamond Beach'. Locals call it this since the ice chunks lying on it resemble diamonds glistening in the sun!

Iceland

I would love to revisit this breathtaking country. Not only did I get to see many amazing sites, including the steamy Blue Lagoon, the Great Geysir and Svartifoss (a beautiful waterfall), I learnt a lot about Iceland's history. A Swedish Viking, Náttfari, was the first permanent settler in about 870 AD. The world's first parliament was established in Iceland in 930 AD to protect the settlers' status as free men without a king.



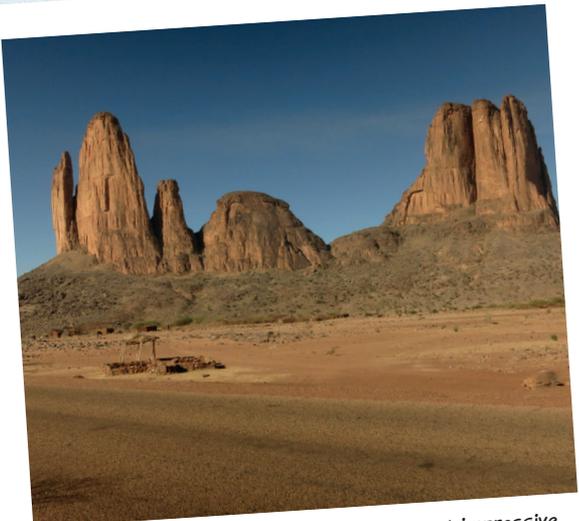
Lesotho

Closer to home, the Kingdom of Lesotho is a must-see! The Katse Dam in the Malibamatso Valley is a particularly spectacular site. It's a double-arch concrete dam and it's the highest dam in Africa at 1993m above sea level. It's also the second largest dam in Africa at 185m in height and 710m crest length. But the things I cherish most from my trip are the woollen Basotho tribal blanket and conical hat I received as gifts from my new friends.



Photo by SkyPixels Photography

The beautiful Katse Dam in Lesotho took six years and 2.32 million cubic metres of concrete to build.



The Hand of Fatima in Mali is one of the most impressive rock formations in the world. The vertical cliffs rise up to 600m and look like a giant hand rising from the desert!

Mali

I will never forget my time in the Republic of Mali. Everyone was so friendly and welcoming, especially Moussa and Aminata, who invited me to their home for sweet tea. Sweet tea is Mali's national drink. It's served three times from the same pot. The first cup means 'strong as death', the second is slightly sweetened and is as 'mild as life' and the third cup is as 'sweet as love'.





Photo by Xavieramau

The Shwedagon Pagoda in Yangon is Myanmar's most sacred religious monument. Its base is gold-plated and its tip is crowned with rubies and diamonds!

Myanmar

The Republic of the Union of Myanmar was the very first place I visited. You could say that I was bitten by the travel bug there. I realised how much I need to learn about the world. Ma Khine Cho and her brother taught me so much about their way of life. The most interesting thing I learnt was that many people chew a mixture of betel leaves, areca nuts and mineral slaked lime as a stimulant, antiseptic and breath freshener.



Papua New Guinea

I was a bit nervous about visiting Papua New Guinea, to be honest, because of the rumours of certain tribes still eating people. But like on all my travels, I learnt so many new things and came across only friendly people. The highlight of my trip was a celebratory feast of veggies and a specially prepared pig that were cooked in layers in a traditional oven dug in the ground.

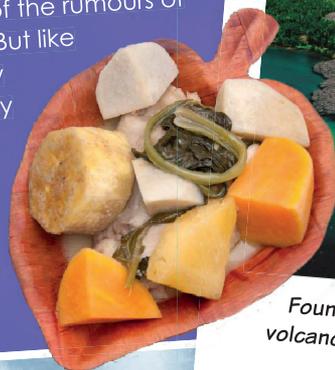
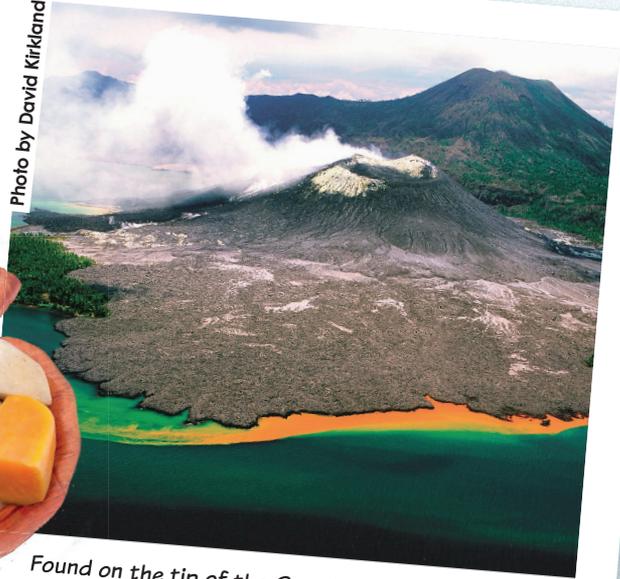


Photo by David Kirkland



Found on the tip of the Gazelle Peninsula, the Rabaul volcano is one of the most active and most dangerous volcanoes in Papua New Guinea.

Trinidad and Tobago

This tropical paradise in the Caribbean is perfect if you want to chill out with a snow cone (flavoured shaved iced) and do some liming (hanging out) with the diverse locals. I met so many different people during Carnival, a celebration held during the last two days before Lent. I met people of West African, Asian Indian, Arawak and Carib Indian (original inhabitants of Trinidad), European, Middle Eastern and European descent. It reminded me of home!

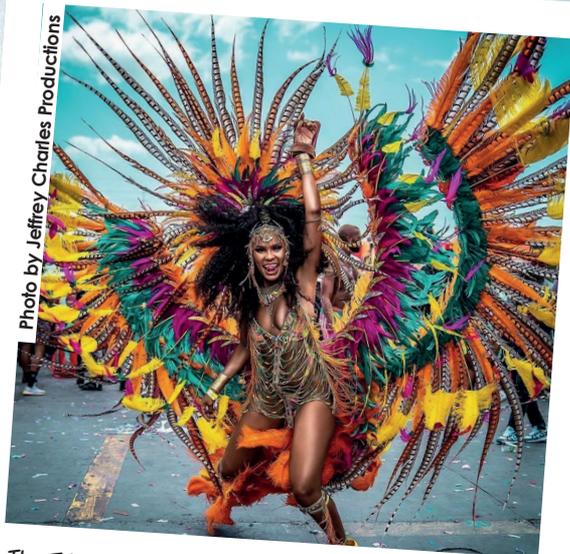


Photo by Jeffrey Charles Productions

The Trinidad and Tobago Carnival is known as the 'Greatest Show on Earth!'. It celebrates history, culture, fashion and art, all fused together!

What's a birthday without Birthday Candles?

Words by Andrea Vermaak

Illustrations by Joshua Neilson

Time to celebrate!

At *Supernova's* 10th birthday bash, there was – as there should be at any birthday party – a delicious-looking cake with 10 colourful little candles placed on top, ready to be lit and blown out after singing a joyful 'Happy Birthday' to our favourite kids' mag.

I approached the cake to take a closer look. Then it struck me: who started the tradition of placing candles on a cake and blowing them out on your birthday? This question led to many more. I just had to ask one of the birthday candles himself to get the info first-hand.

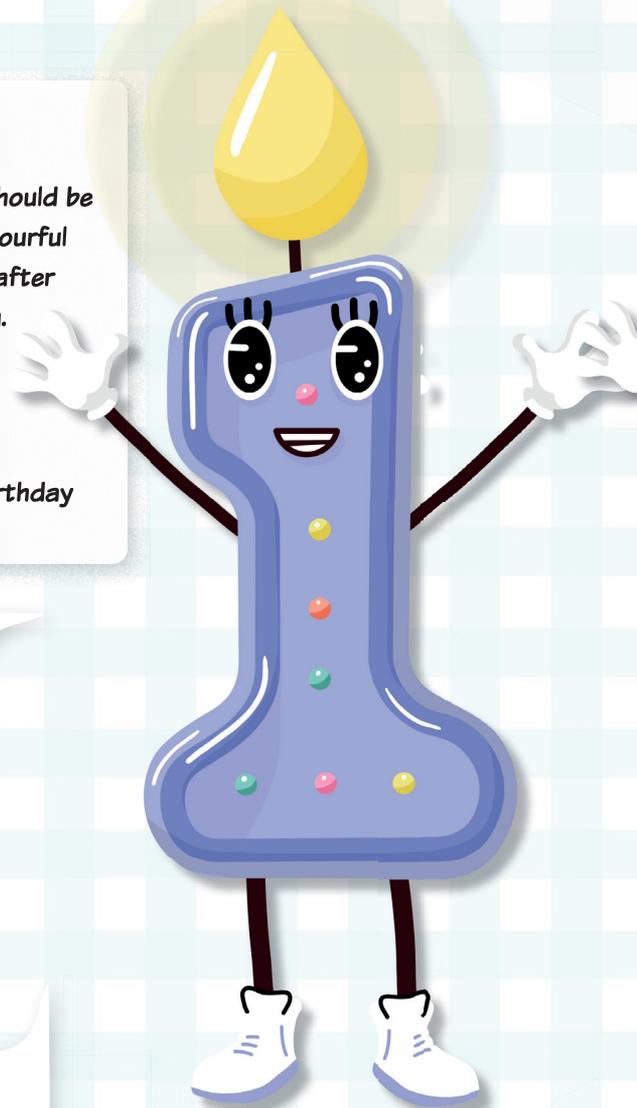
Q: Where does the tradition of placing you on top of a birthday cake come from?

A: We weren't actually placed on birthday cakes at first. It's believed that the ancient Greeks placed us on offerings to their gods and goddesses. We may have been placed on honey cakes, for example, to honour Artemis. She was their goddess of the hunt and the moon. The cakes were round to represent the moon and we were lit to represent moonlight.

The ancient Romans were the first to celebrate birthdays with cake, but it was not until the 18th century in Germany that people began the tradition of placing us on top of children's birthday cakes to celebrate their youth. Our German ancestors were lit, but not blown out. Everyone only ate cake after the candles had burnt down on their own. There also seems to be a religious link to the Germans placing candles on cakes. A large candle in the middle of a cake is said to have symbolised 'the light of life' in their culture.

Get this!

The Sri Chinmoy Centre in New York holds the Guinness World Record for the most birthday candles on a cake. They lit over 70 000 candles! Sadly, due to the large amount, Sri Chinmoy wasn't able to blow them out. Instead, he resorted to using a fire extinguisher!



Q: Why do we blow you out?

A: The tradition of blowing us out may stem from a belief in many different cultures that our smoke would carry their prayers and/or wishes to their chosen deity in the sky. Others in the past may have believed that our smoke helped to keep evil spirits away.

Q: Are there any other superstitions linked to you?

A: Besides the superstitions linked to our smoke, many still believe today that you must make a silent wish before you blow us out. Some believe that if you blow us all out at once, your wish will come true and you'll have good luck for the rest of the year! If you blow us out with more than one breath, your wish will supposedly not come true. Some say it also won't come true if you tell someone what you wished for.

Q: Trick candles are rather fun. How do they work?

A: Those are my prankster cousins! I love them! So, you'll have noticed how they automatically relight themselves after you've tried to blow them out, right? That's because those cheeky candles have magnesium metal dust added inside their wicks. The wick is the part that you light.

If you blow an ordinary candle like me out, you'll usually see a burning ember on the end of my wick. The ember is hot enough to vaporise the paraffin on my wick and cause the smoke that you see. But, it's not hot enough to ignite the paraffin back into a flame.

Trick candles work differently, though! Once you've blown them out, the embers that remain are hot enough to ignite the magnesium. Magnesium burns quickly at a low combustion temperature (as low as 437°C, which is low for a flame!). The magnesium then gets hot enough to ignite the paraffin vapour back into a flame and... surprise! The birthday boy or girl is left baffled!

?! Get this!

What flavour would your ideal birthday cake be? Well, according to research the most popular choice is chocolate.

Supernova

After our interesting conversation, I was asked to light my new friend and his fellow birthday candles. We all sang our hearts out to Supernova, gave three cheers of 'Hip, Hip, Hooray!' and blew all the birthday candles out in one breath. Did I make a wish? Of course I did, but I'm not telling you what it is!



The Chatroom

Since *Supernova* is turning 10 this year, we decided to ask some of the people who helped to create our awesome mag a very important question...

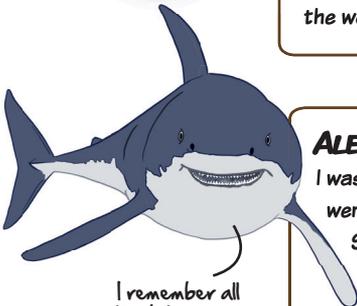
What's your favourite *Supernova* memory?



KERRY - ILLUSTRATOR

My article in *Supernova* was the first official printed work I had ever done. Seeing something go from concept to illustration to an actual printed article that was going to be read by actual people, was a memorable moment indeed! *Supernova* provided a bridge over the daunting gap between the student world and the worker-bee world. This bridge was greatly appreciated!

SN ✓✓



I remember all the bite-sized chunks

ALEX - PRODUCTION MANAGER

I was at *Supernova* for just under five years, and working on the crafts were some of the best times I had there. From Galileo Pendulums to Peg Sharks... we came up with some pretty wild things from time to time! One of my favourites was also the articles on colour. The concept was so simple, but it was just so satisfying to build patterns out of everyday objects.

SN ✓✓



By the year 2179, *Supernova* will have published its 1000th issue!

Here's to the next 9945 issues!



ANDREA - SN'S FIRST EDITOR

I will never forget holding a copy of the very first issue of *Supernova* in my hands when it came back from the printer. So much research, planning and hard work went into creating what I believe to be the best kids' mag in the world. It was a very proud moment for me and I'm thrilled to still be part of *Supernova* 10 years later!

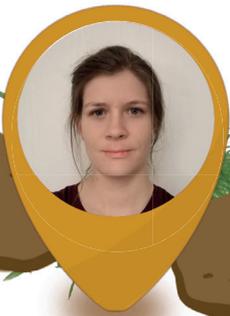
First issue September 2011



SHARLIEN – ARTIST

My favourite *Supernova* memory was a collaborative office chat session where everyone demonstrated their favourite yoga pose over a cup of amazing coffee. That's what *Supernova* is all about - learning, sharing, having fun, and using our creativity to create a special reading experience for every reader.

SN ✓✓



KENDALL – WRITER/MARKETER

My favourite thing about working at *Supernova* is all the amazing people I met! From the awesome kids at schools, to the musicians I interviewed, to the friendships I made with my co-workers. Working at *Supernova* enriched my life.

SN ✓✓



WALDO – LAYOUT ARTIST

I have had a wonderful experience being part of the *Supernova* team. I enjoyed creating fun illustrations and layouts to make it appealing for younger readers. One of my very first layouts was on the history of comic books – it was so exciting to see my contribution in print! I still remember paging through that issue with a mingled sense of pride and delight. I really enjoyed going through the different illustrations and reading the articles, and over the years, it was great to see a similar excitement in the expressions of kids reading through *Supernova* for the first time.

SN ✓✓



ANTOINETTE – WRITER

I glided with vultures and got on my knees to greet a rare millipede. I criss-crossed the biomes to share information from pangolins, to orchids, to elephants and reptiles. And after 10 years, guess what? There is so much more! And that is the best part of my time at *Supernova*, never a dull moment!

SN ✓✓



JESSICA – DESIGNER

I have loved working at *Supernova* these last two years. From reading it as a child to now taking part in putting it together, I am happy to say it is a dream job!

SN ✓✓



CANDICE – SN'S EDITOR

My first issue as the new editor of *Supernova*, was Vol 9.4 – the Wild Babies issue. I loved everything about it! From researching hamburgers grown in a lab, learning about the fastest objects on Earth, and decorating our 'Cakes through the Ages' article with the most beautiful and drool-worthy baked creations! I'm super proud of that issue.

SN ✓✓



The Chatroom

Do you want to contribute to the next Chatroom? Follow *Supernova* magazine on Facebook, or subscribe to the SN Kids Club newsletter and look out for our questionnaires.

You can also **Whatsapp** us on 012 342 5347.



Life, the universe and everything

Famous pets and their humans

Words by Caitlin Brown
Illustrations by Benoit Knox

For many of us, pets are part of the family, whether they have fur, feathers, fins or scales! But do you know the backstories of these pets belonging to some of the most famous people in history?



Now say #&***!
#&***!
Mr President
Good girl!

Andrew Jackson's parrot, Poll

Poll, the African Grey parrot belonging to Andrew Jackson, 7th president of the USA, was most well known for causing a fiasco at Jackson's funeral by swearing! I wonder where it learnt that...

Bill Clinton's cat, Socks

The 42nd President of the USA, Bill Clinton's cat Socks was found by his daughter, Chelsea, at her piano lesson. When Socks jumped into her arms, the Clinton family were adopted. Socks became so famous that his likeness appeared on TV shows and on stamps. Socks even received letters while at the White House!



Darn it, Socks! That was the Israel-Jordan peace treaty.

Josephine Baker and her cheetah, Chiquita

Josephine Baker was a well-known entertainer and performer in the 1920s-1930s. She was gifted a cheetah, Chiquita, who would often go on stage with her wearing a diamond collar. Chiquita apparently jumped into the orchestra pit once. Those poor musicians!



My human may be even more glamorous than me!

Get this!

Chiquita wasn't Josephine's only pet! She also had a goat named Toutoute, who lived in her dressing room at her nightclub, and a pet pig named Albert.

Wolfgang Amadeus Mozart's starling

Not much is known about Mozart's starling, except that he bought it in 1784 and it died three years later. It's death brought a feeling of profound loss, as his little bird had been an inspiration to Mozart and his music. He was so saddened by its death that he held a funeral and wrote a beautiful poem called 'A Starling'.

?! Get this!

Mozart found his starling in a Viennese shop. After he heard the bird sing an improvised version of the theme from his Piano Concerto no. 17 in G major, Mozart took him home to be a family pet.



Phoebe, my dear. What do you think of my latest song? I shall play it tonight as Rome burns.

Emperor Nero of Rome and his tigress, Phoebe

Emperor Nero, ruler of Ancient Rome, was known as an ineffectual leader and considered decadent because of his extravagant lifestyle. He saw a tigress called Phoebe fighting in the Colosseum and was so impressed that he took her as a pet! He allowed her to eat at his table, built a golden cage for her to sleep in and even fed her his enemies! There are no first-hand accounts that can prove this story, but it is impressive, isn't it?

You say she is intelligent, but all she does is monkey around!

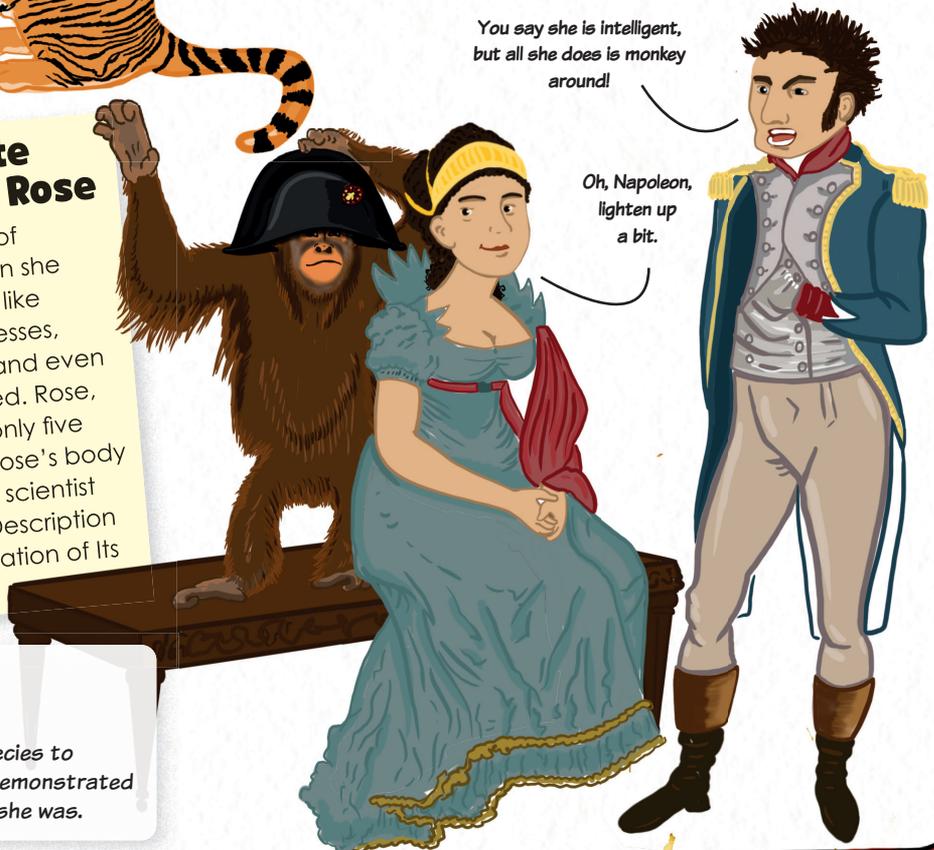
Josephine Bonaparte and her orangutan, Rose

Josephine Bonaparte, Empress of France, was given an orangutan she named Rose. She treated Rose like a child: dressed her in white dresses, taught her how to use cutlery and even allowed her to sleep in their bed. Rose, however, passed away after only five months. Josephine donated Rose's body to Georges-Frederic Cuvier, a scientist who studied her and wrote 'Description of an Orangutan and Observation of Its Intellectual Faculties'.

Oh, Napoleon, lighten up a bit.

?! Get this!

Rose was the first of her species to arrive in France and quickly demonstrated what an intelligent creature she was.



NFTS

The New Norm or A Digital Dupe?

Words by Su-Mia Hoffmann

Background image by Joshua Neilson

What on Internet is an NFT?

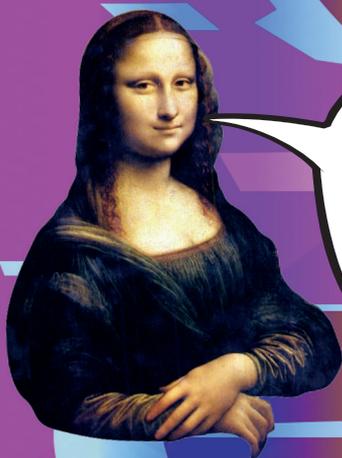
NFT stands for 'non-fungible token'. Not that it makes it any clearer. Let's break it down word for word.

Non-Fungible

'Non-fungible' means that it is something entirely unique and irreplaceable. Let's use an example to explain the concepts of 'fungible' and 'non-fungible'. A R10 note is fungible, because I can exchange my R10 with your R10 note, or even with two R5 coins, and the value will stay the same. Money is fungible. But I can't exchange the Mona Lisa for any other painting; the Mona Lisa is unique. A collectable like the Mona Lisa or even a limited-edition Hot Wheels car or one-of-a-kind gold marble is non-fungible.

Token

NFTs are 'tokens', because when you buy an NFT, you buy the token that is actually just a digital certificate that says you own whatever the NFT represents. Even though an NFT is just a digital certificate, when we say NFT we are also talking about the thing the certificate is for.



Wait, so I'm not buying an actual thing, I'm just buying a digital certificate?

Correct. NFTs represent digital objects, so copies can easily be downloaded or passed from person to person via, say, a flash drive. If we go back to the example of the Mona Lisa, it's like buying the certificate that says you own the original Mona Lisa. Even if millions of people have a photo of the Mona Lisa on their computers, only you have the certificate that says you own it.

What can be an NFT?

An NFT can represent anything from a digital drawing to a video, an item in a game, a piece of music or even a tweet. Usually, NFTs are digital art. But wait, we just said that millions of people can have a photo of the Mona Lisa on their computers? If the NFT is a photo, how does that work? No matter if there are millions of copies of an NFT (like the photos featured in this article) there can only be one original. The digital file of an NFT is coded with data that includes the details of the owner.

Why should you take note?

Because some of these NFTs have sold for a staggering amount of money. Some people think NFTs are the future of collecting, while others think it's a fad that is going to pass. What do you think?

How are NFTs used?

NFTs are mostly collectables, but they can also be used as cryptocurrency (digital money), like Bitcoin. This is because NFTs were originally randomly generated pixel art.

Big Bucks for Digital Data

Let's have a look at a few of these ultra-expensive NFTs. You can decide for yourself whether this trend is here to stay or a bubble that's going to burst!



Photo of a Potato

This image of a spud was created by the Irish-born artist Kevin Abosch and sold for the unbelievable price of over R17 million.



The First Ever Tweet

The CEO of Twitter, Jack Dorsey, auctioned his and Twitter's first ever tweet for the modest price of R42 million. The proceeds from the sale were donated to charity.



Real Estate in a Game

In a game called Axie Infinity, one user bought nine Genesis Land blocks for almost R23 million.



A collage of 5000 images

This collage of 5000 images was made by the artist Mike Winkelmann, commonly known as Beeple. The 5000 images are made up of images taken over the last 13 years: one image per day since May 2007. The artwork is called 'Everydays: The First 5000 days' and sold for the bargain price of over R1.3 billion.



A Music Video and Song

The artists 3LAU and SlimeSunday created a song with a music video and auctioned it off. It was called 'Auction Winner Picks The Name' and sold for over R19 million.



A Meme

This picture of the well-known meme of a dog was auctioned for more than R58 million.

Hidden Pictures™

TM



bell



fried egg



ladder



golf club



spoon



domino



pencil



cookie



toothbrush



slice of bread



magnifying glass



banana



envelope



spoon



kite



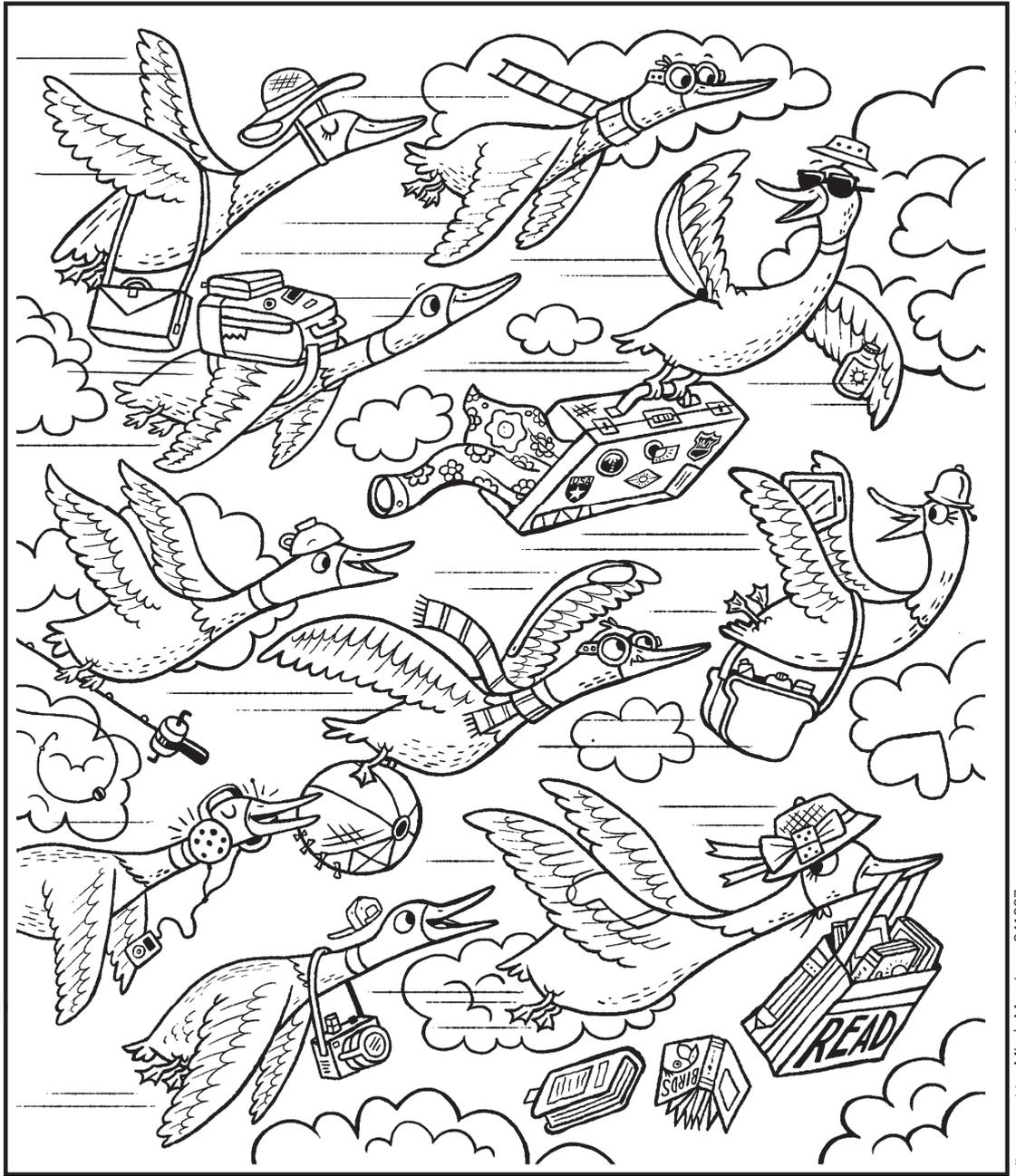
sock



teacup



heart



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Illustrated by Mitch Mortimer 241297

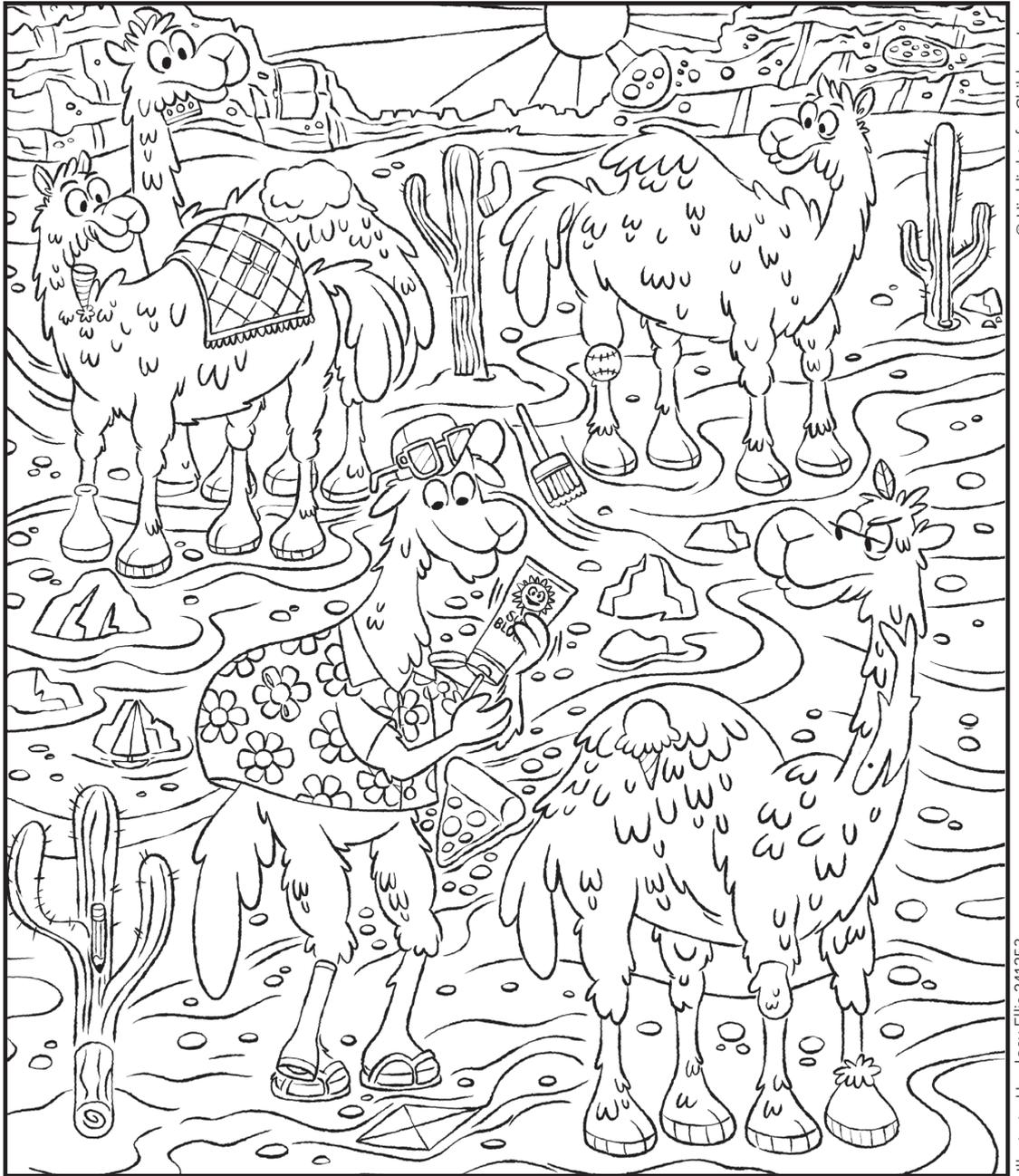


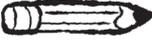
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-  window
-  lightning bolt
-  vase
-  leaf
-  knitted hat
-  sailboat
-  sock
-  wave



-  pencil
-  cookie
-  crown
-  open book
-  log
-  paintbrush
-  shark
-  mitten
-  mushroom
-  bacon
-  baseball

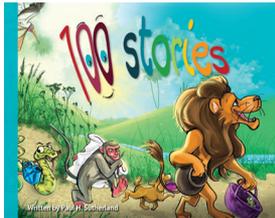
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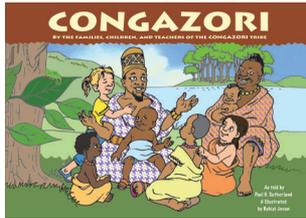
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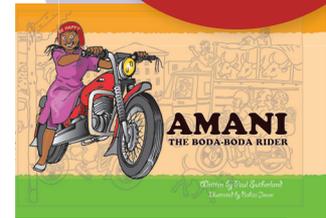
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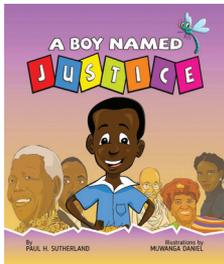


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A courageous young boy teaches children about bullying, justice, and acceptance.



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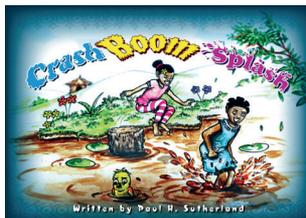
Sometimes, we feel happy, and sometimes, we feel sad! This book teaches us that it's okay to feel all kinds of different emotions.



Sharon's Song

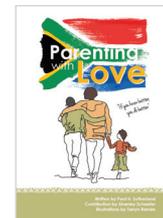
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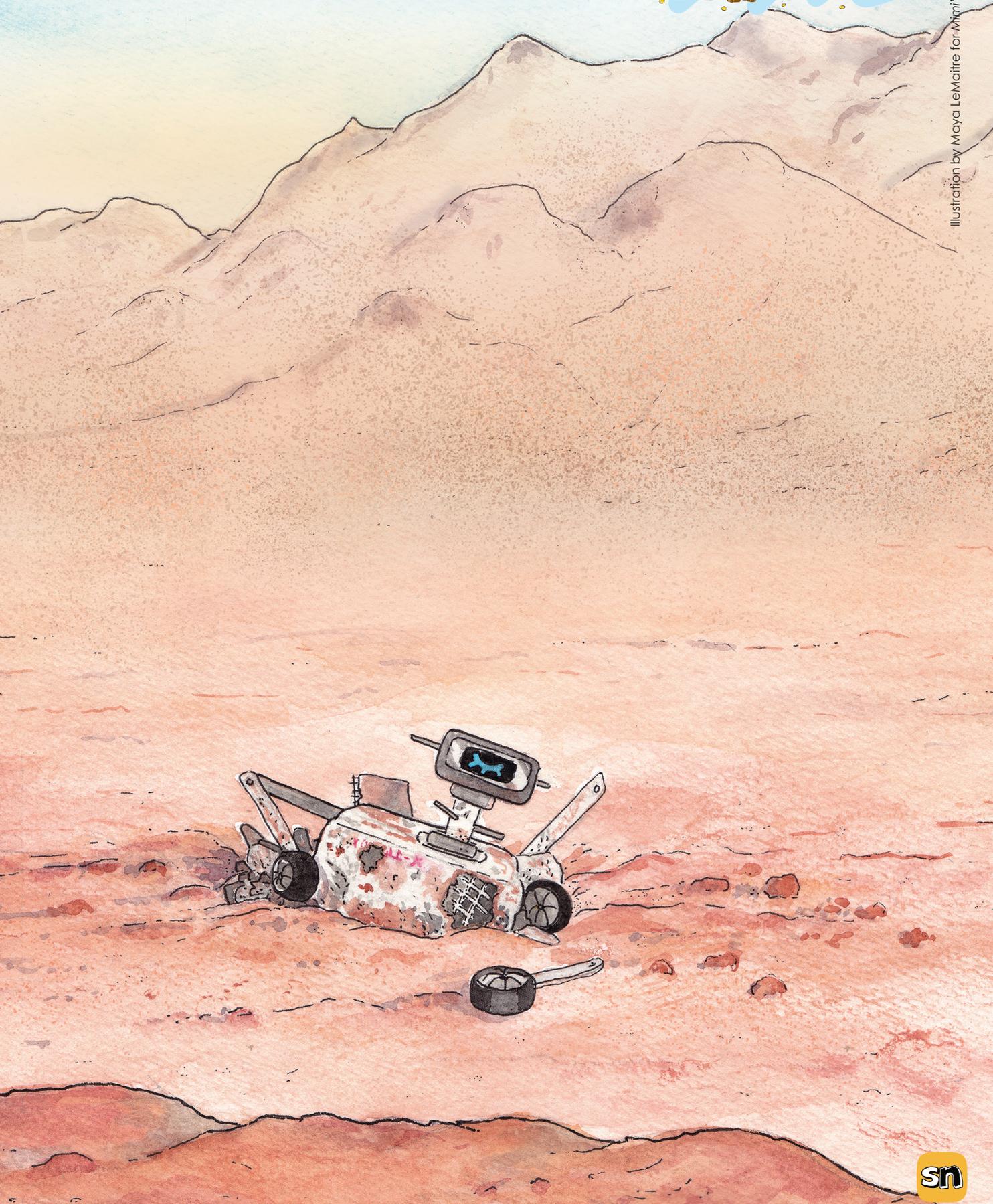
STEPi is for people who really want the tools to help create a world of peace, compassion, justice, resilience, happiness, and thriving sustainability for everyone, now and all future generations. *Paul H. Sutherland*

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STEPi is an organisation that aims to make sure children are prepared, willing, and happy when they reach adulthood. Squaring the Education Pyramid Institute publishes children's books, written by Paul H. Sutherland and these books encourage empathy, self awareness, and inclusivity, and focus on the emotional development of children.

MIMI'S LIFE ON MARS

Illustration by Maya LeMaitre for Mimi's Life on Mars







Fennec Fox

Photo by Tzooka, Dreamstime

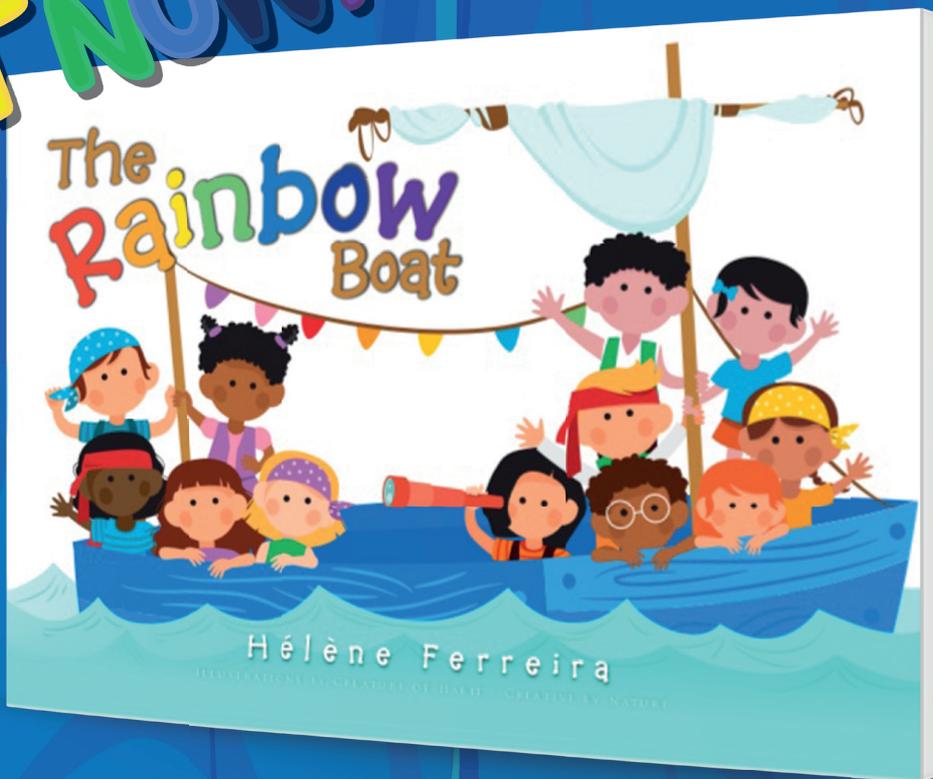
Fennec foxes are the smallest foxes in the world, but their large ears (measuring up to 16 cm!) seem to be on loan from a much bigger relative! Also known as the 'desert fox', these petite animals live in the desert areas of North Africa and the Sinai and Arabian points.

Fennec foxes are nocturnal animals, and try to avoid the daytime heat of the desert. They use their bat-like ears to help radiate their body heat and cool down. Like most desert dwellers, fennec foxes have the ability to go for long periods without water. Their thick, soft fur coat also keeps them cool but, sadly, this is also the reason why they are hunted. They even have fur on their feet that protects their footpads from the scorching ground.

Normally, they keep to small groups of up to 10 foxes, and mark their territory with urine, just like male dogs. They can also jump up to six meters in the air!



OUT NOW!

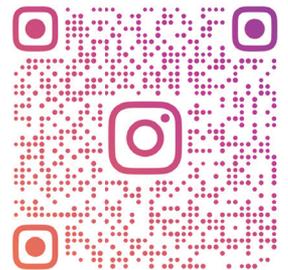


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The next book in the series will be released in September 2021.



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Shhh!

Be very quiet!
A special night-
time visitor just
popped into my
garden.
It's a genet!

Imagine that! I was
about to go to bed
after a long day, but
this little critter, like
many other nocturnal
animals, is just
starting its 'day'.

Let's find
out more
about the
creatures
of the night.



10 Animals

UP PAST 10

Words by Candice Robertson
Illustrations by Benoit Knox

?! Get this!

Scientists sometimes use the word *crepuscular* to describe nocturnal animals that are not active when it is very dark at night; they are mostly active near dawn, dusk, and sometimes when the moon makes a lot of light.



Nocturnal animals

At sunset, most animals head for the safety of their den, burrow or nest. But, some animals are just waking up! Nocturnal animals sleep during the day, and are awake and active at night. Some nocturnal animals can be seen during the day, but most of them spend their whole day resting.



Photo: Cash Parker



Photo: Tara Veith

Why are animals nocturnal?

Many animals are probably active at night for a combination of reasons. One of the main reasons is that it is easier to hunt for food at night. Since the air is still at night and scents linger in the air, it becomes easier for nocturnal animals to pick up and track scents, and find food. There is also less competition from the diurnal animals that search for food during the day.

?! Get this!

Animals that are active during the day and sleep at night, are known as diurnal.

Most importantly, the twilight and night hours mean that nocturnal animals are harder to detect. This goes for both prey and predator animals – prey animals use the cover of night to forage more safely, while predators use the same darkness to catch prey more easily.



Photo: Cash Parker

Also, in many areas, the daytime is extremely hot. Water conservation is an important reason to avoid the heat of the day, which means that many animals prefer to move around when it's cool and dark to avoid overheating and wasting precious water. In the daytime, they keep their body temperatures down by resting and hiding in shady spots.

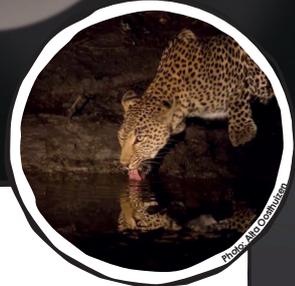


Photo: APO Community

What helps these animals at night?

Animals that hunt, mate, or are generally active after dark have special adaptations that make their life during the night-time easier. Unlike humans, they generally don't rely on their sight as their primary sense. Instead, they get around thanks to sensitive ears, whiskers (to sense nearby objects), and smell.

Even though nocturnal animals don't only rely on their sight to get around at night, most of them are able to see very well in low light! Many nocturnal animals, like owls, have really big eyes that help them see in the dark. This is because the cornea, which is the front part of the eye, is much bigger on many nocturnal animals and lets more light into the eye!



Photo: Drew Kitchell

But, sight isn't the only feature that nocturnal animals have adapted to their environment. Nocturnal animals have specialised hearing to help them hunt at night, or avoid being hunted. Some animals have cupped ears to help catch more sound, while others have asymmetrical hearing, like owls do, which means that they can pinpoint exactly where something is.



Photo: Barbara Keshel



Other animals don't even need to see at night. Some animals, like bats, rely entirely on echolocating. They send out high-pitched sounds and analyse the echo delay in order to calculate distances. This helps them to navigate and hunt. Some snakes have heat-sensitive sensory receptors that, like echolocation, help them navigate and find prey.



Many nocturnal animals are also mammals. Their warm-blooded bodies and furry coats help to keep them warm and active at night when temperatures drop.

10 Animals Up Past 10

Sometimes, there is more action on the African plains during the night than there is during the day! Here are some unique African animals that come out to play once the sun has set for the day.

Cape porcupine

Hystrix africaeaustralis

Porcupines have poor vision, but they have an excellent sense of smell. They have sharp front teeth that keep growing throughout their lives, and sharp claws to climb trees and feed on the bark and twigs high off the ground. Porcupines use their quills as a defence against predators. They will either shake them and make a rattling noise, or charge backwards into the predator.

During the night, porcupines patrol their territory and defend their feeding areas.



?! Get this!

A porcupine can have more than 30 000 quills, which are actually just sharp bristles of fused hair.

Wahlberg's epauletted fruit bat

Epomophorus wahlbergi

Most bats use echolocation, also called bio-sonar, to navigate in the dark and hunt for food. They do this by producing high-pitched sounds from their noses or mouths. The sound waves bounce back when they meet an object, and carry information about the object's distance and size. This allows the bat to 'see' with sound. Flying at night also prevents a bat's wings from absorbing large amounts of heat.



?! Get this!

Bats are the only mammals that are able to fly.

Aardvark

Orycteropus afer

Aardvarks are very shy and mysterious creatures, which make them perfectly suited to the night life. During the day, they stay cool in their underground burrows, and at night, they put their powerful feet and claws to good use by digging for their favourite food – termites. They forage over many kilometres in grasslands and forests, and swing their long noses from side to side to pick up the termites' scent.

Their sense of hearing is very good, so they are able to detect approaching predators from far away. If they need to escape, they can dig fast or run in zigzags. If not, they can strike with their claws, tail and shoulders, and have been known to flip onto their backs and lash out with their four legs.

?! Get this!

Aardvarks are digitigrades, which means they walk on their toes, and not on the soles of their feet.

Aardwolf

Proteles cristata

Aardwolves are insectivorous, and have a strict diet of termites. They use their acute hearing and smell to detect termites in the ground and then use their broad, sticky tongue to lap them up. Termites give the aardwolves the same amount of protein as they would have gotten from lean meat, but this food option reduces competition with other carnivores and is less effort to hunt!



?! Get this!

The aardwolf can eat over a quarter of a million termites in one night!



Barn owl

Tyto alba

An owl's eyes collect light to enhance their vision in the dark. Their eyes are also forward facing, which means that they have to use their flexible necks in order to see around them. To complement their eyesight, owls also have excellent hearing. They can hear the tiniest, ultrasonic sounds made by their prey. This is helped by the feathers around an owl's face which are arranged to direct sounds towards their ears. Owls are also the masters of silent flight, and their large wings allow them to fly without having to flap much. This is important, as owls must be able to hear their prey and remain unnoticed while hunting.



?! Get this!

Barn owls have a movable flap on their ears that can direct sounds coming from behind them.

Springhare

Pedetes capensis

Springhares are rodents that hop like a kangaroo and are propelled by their large hind legs. They use their sharp, curved claws to dig systems of burrows, where they hide during the day. At night, they come out to forage for food and stick close to their burrows. If they are threatened, they will hurry back to their holes, and can jump 2m if necessary. They have long whiskers and sensory hairs to help them navigate and detect danger. They also have advanced senses of sight, hearing and smell, which help them to avoid predators during the night hours. Their large feet can also detect vibration on the ground.



Fiery-necked nightjar

Caprimulgus pectoralis

Nightjars are hard to spot because of their brown camouflaged feathers. During the day, they are pretty much motionless, but during the night, they come out to put their aerodynamics to good use and catch insects. They have very large eyes, which allow them to see well in the dark. Because of their sharp eyesight, they can easily spot insects against the night sky. Their broad, squat bills mean that they can open their mouths wide – basically sucking insects into it! Sensory feathers around their face (called rictal bristles) also help to channel food into their mouths.

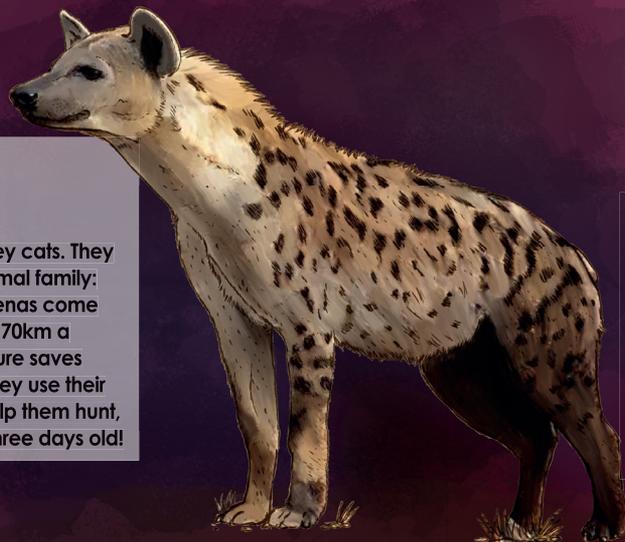
?! Get this!

Nightjars are often called the 'swallows of the night'.

Spotted hyena

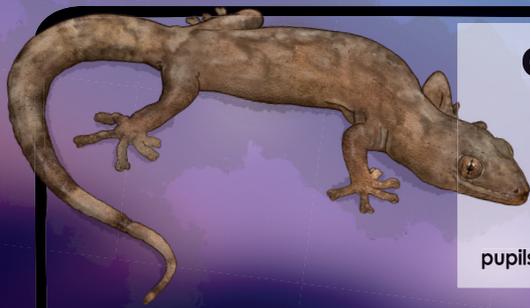
Crocuta crocuta

Hyenas are not dogs, nor are they cats. They actually belong to their own animal family: *hyaenidae*. During the night, hyenas come out to hunt and can cover up to 70km a night. Their unusual slanted posture saves them energy while they walk. They use their exceptional sense of smell to help them hunt, and can follow scents that are three days old!



?! Get this!

During the night, you can hear hyenas 'whooping' or calling to each other. This is to advertise territory or rally clan members.



Gecko

Gekkonidae

At night-time, geckos are often found around lights, since they are attracted to the warmth and the insects that gather there. They have huge eyes, which help them to see at night and they keep their eyes moist by licking them. Geckos can also dilate their pupils very wide, to let in as much of the dim night light as possible.

Dung beetle

Scarabaeus viettei

Dung beetles compete for a limited amount of food at a dung pile, so when an individual is finished rolling a ball of dung, it tries to make a quick escape. And the fastest way to travel is in a straight path. Dung beetles are able to move in straight lines by using the light from the Milky Way to guide them. Special photoreceptors in their eyes detect the symmetrical pattern of light that shines from the Milky Way, and this helps them to make their quick escape!



Threats to nightlife

Since cities are expanding, unnatural light during the night-time hours is becoming more common in territories occupied by wild animals. Now, nocturnal animals don't have the darkness they need to have successful activity at night.

This means that:

- diurnal animals have longer hunting hours
- nocturnal animals have more trouble avoiding diurnal animals
- migration patterns change and animals can become confused
- more animals may begin to show nocturnal characteristics, resulting in an unbalanced ecosystem.

Rising temperatures across the globe are also forcing more animals to become nocturnal and come out later in the day, since the sun is too warm for them during the daylight hours.

Be mindful of nocturnal animals

Limit instances of human 'disturbance', like being loud, building roads and infrastructure close to wildlife areas, poaching animals, or taking over their land. Also take care to leave no trace when hiking and mountain biking in wild parks. Make sure you stick to designated trails and keep your activities to certain times of the day so that you don't disturb the wildlife.

! Get this!

The average Cape Town domestic cat kills between 59 and 123 animals per year. This is a big threat to nocturnal animals!



Photo: Bryone on Corbis, iStock

Every night, as our day winds down, another world is active.

During the night shift, there are animals foraging, hunting, digging, building, calling, socialising and mating.

Every day, when we wake up, the world has changed a little thanks to the activities of the creatures of the night.

Make your own SHADOW PUPPETS

Making your own shadow puppets is a really fun way to create your own characters and tell stories by casting shadows onto a wall.

Download our printable shadow puppets from SN Online!

What you need:

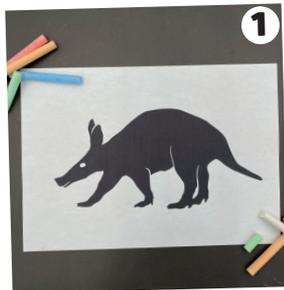
- Printable shadow puppets
- Paper
- Printer
- Cardboard
- Straws, craft sticks or skewers
- Tape
- A glue stick
- Scissors or a craft knife
- Light source (sun, lamp or flashlight)

!! Warning!

Ask an adult to help you cut out the shadow puppets. Especially if you are using a craft knife.

?! Pro Tip!

Use a black marker to colour in any parts where the white of the paper may be showing.



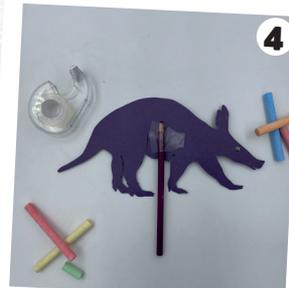
Print out a shadow puppet design onto a piece of paper.



Glue your shadow puppet onto a piece of cardboard.



Use the scissors (or craft knife) to cut around the shape of the shadow puppets.



Secure a straw, craft stick or skewer to the back of the puppet using tape.



Shine your light source against a wall to bring your puppet to life!

?! Pro Tip!

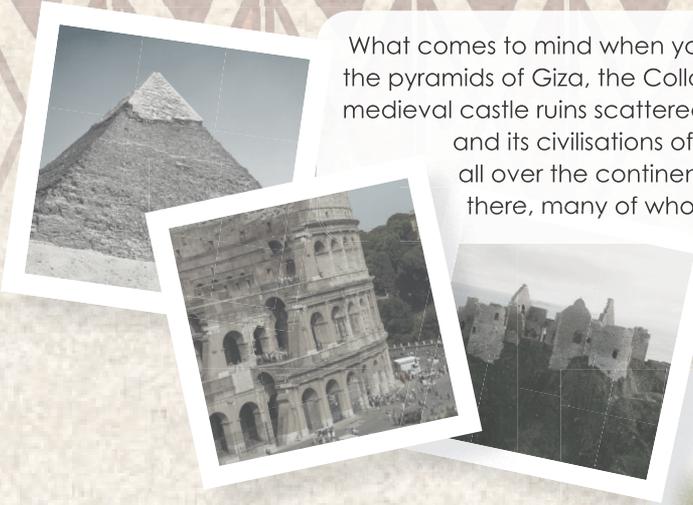
Make sure to cover the whole shadow puppet (not just the edges) with glue before sticking it down to the cardboard. This will ensure that your puppet doesn't fall apart after you cut it out.

Ancient Ruins of Africa

Words by Andrea Vermaak

Illustrations and layout by Joshua Neilson

What comes to mind when you think about ruins? You may think about the pyramids of Giza, the Colosseum in Rome, or perhaps the many medieval castle ruins scattered across Europe. We often overlook Africa and its civilisations of old. The ancient and medieval ruins found all over the continent tell us a lot about the people who lived there, many of whom were very advanced and prosperous.

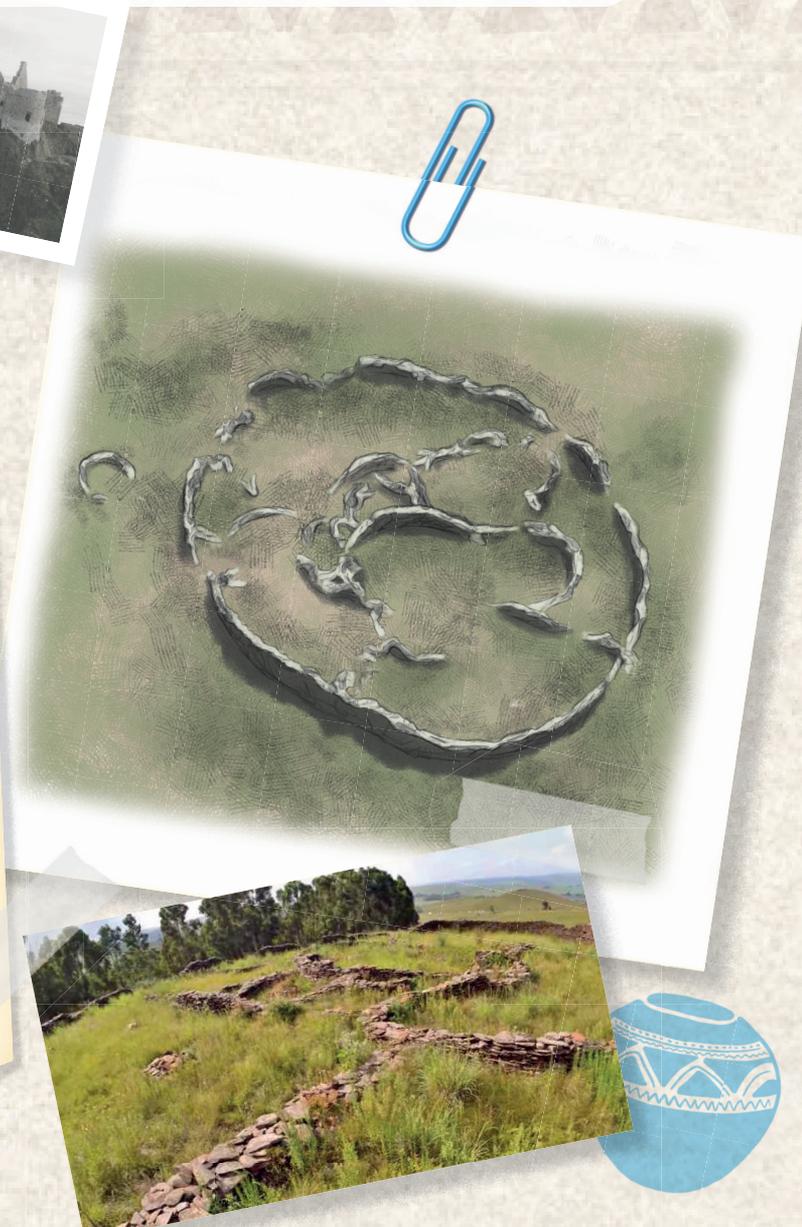


Adam's Calendar, South Africa

Adam's Calendar in Mpumalanga, South Africa, is the most famous of thousands of standing stone circles in the area. The site was first thought to be the remains of a 14th century Bantu livestock enclosure. On closer inspection, the giant dolerite stones were found to be arranged to track the movement of the sun, making it an ancient stone calendar that still works today.



We don't know who built the stone circle or how. It was originally believed to be about 75 000 years old, but it's now thought to be between 160 000 and 200 000 years old. This makes it quite possibly the oldest man-made structure in the world.

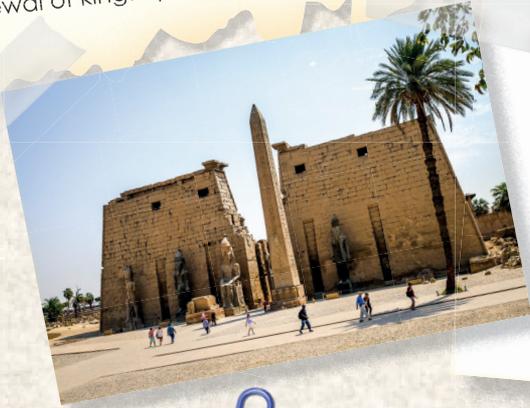


Luxor Temple, Egypt



Egypt has so much more to offer of the ancient world than its pyramids. Luxor Temple was the largest and most important religious site in ancient Egypt. It was constructed over centuries and is found in modern day Luxor (ancient Thebes) on the banks of the Nile River. Ancient Egyptian pharaohs Amenhotep III, Tutankhamen, Horemheb and Ramesses II constructed it between 1390 and 1213 BC.

Though some of the chapels were dedicated to gods, the temple itself was not dedicated to a god or pharaoh. It's believed to be where many pharaohs were crowned. So, it may have been dedicated to the renewal of kingship.



Gedi Ruins, Kenya



The Gedi Ruins in Malindi, Kenya, are those of an abandoned city found deep in a tropical forest on the coast of the Indian Ocean. The ruins were discovered in 1894. The city is thought to have been founded in the early 13th century. It was home to about 2500 Muslim traders.

The advanced city features streets, running water and even flushing toilets. The beautiful ruins are those of coral and rock houses, a palace and a mosque.

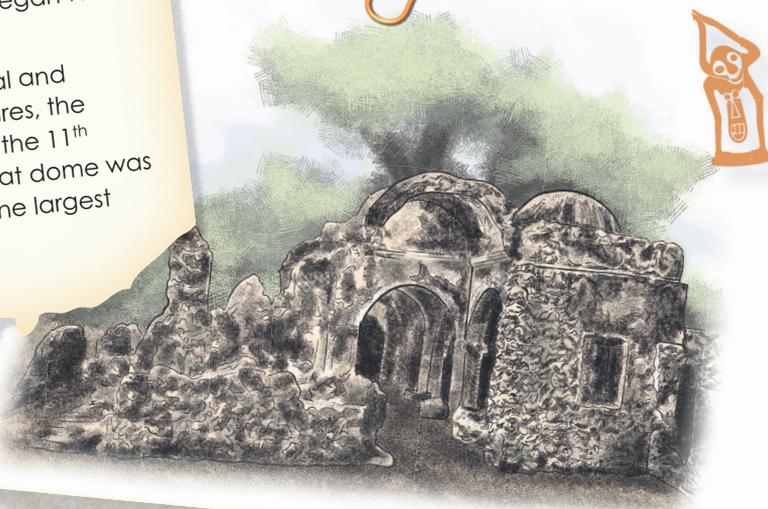
There are no historical records of Gedi and no one knows why it was abandoned in the early 17th century. It seems that the inhabitants weren't forced to leave though, as they had time to clear out their special strong rooms that are found in every home.



Kilwa Kisiwani, Tanzania

On the island of Kilwa Kisiwani, off the coast of Tanzania, are the ruins of a great Swahili trading port. The site was occupied from the 9th to the 19th century. It was most prosperous in the 13th and 14th centuries. Merchants dealt in much of the Indian Ocean trade goods, which included silver, gold, pearls, perfume, Chinese porcelain, Arabian crockery, and Persian earthenware. After a Portuguese fort was established on the island in 1505, the port began to decline.

The once beautiful city was built using coral and lime mortar. It features houses, public squares, the 14th century palace of Husuni Kubwa and the 11th century Great Mosque. The mosque's great dome was constructed in the 13th century and was the largest dome in East Africa until the 19th century.



Great Zimbabwe, Zimbabwe

Great Zimbabwe was once the capital of the Kingdom of Zimbabwe. It was founded around 1100 AD and formed part of a wealthy global trading empire.



Its stone walls gave the city its name. 'Zimbabwe' means 'stone houses' in Shona. But there is something special about its walls. The granite walls of the Great Enclosure, for example, are built entirely without mortar. Only carefully shaped and placed rocks keep the huge curved walls standing. It was constructed during the 14th century and may have been a royal residence, or a grain storage facility with symbolic meaning.



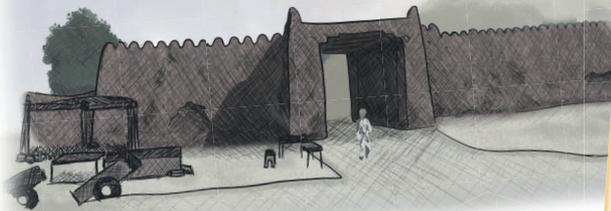
No one really knows why the Shona abandoned the city in the 15th century. It's believed that overpopulation (10 000 to 20 000 people) and scarce resources may be reasons.

Aksum, Ethiopia

Aksum is found near the base of the Adwa Mountains in Ethiopia. It's the site of the historic capital of the Aksumite Empire. Aksum ruled the region from about 400 BC into the 10th century AD. It was one of the greatest trading and naval powers in the world from the 1st to the 7th century AD. Aksum had a huge impact on Egypt, Mediterranean Europe, southern Arabia and Asia.

Its sites, including palace and tomb ruins, are now UNESCO World Heritage Sites that still hold many secrets. We know very little of the people who lived there, but we do know that Christianity was embraced in the 4th century after King Ezana converted. We also know that the Aksumites developed Ge'ez, the only indigenous written script in Africa. They were said to be as advanced as the rest of the world at the time.

It's believed that The Queen of Sheba in the Bible was actually Sheba, Queen of Aksum, and that the Ark of the Covenant is said to be found in the Church of St Mary in Aksum. Maybe one day we will know for sure...



Ancient Kano City Walls, Nigeria

The Ancient Kano City Walls were built between 1095 and 1134 AD. They were completed during the mid-14th century and expanded in the 16th century to protect the people inside the city of Kano. The Walls have a 14km radius, and were originally about 9 to 15m high and about 12m wide at the base. They have been described as 'the most impressive monument in West Africa'.

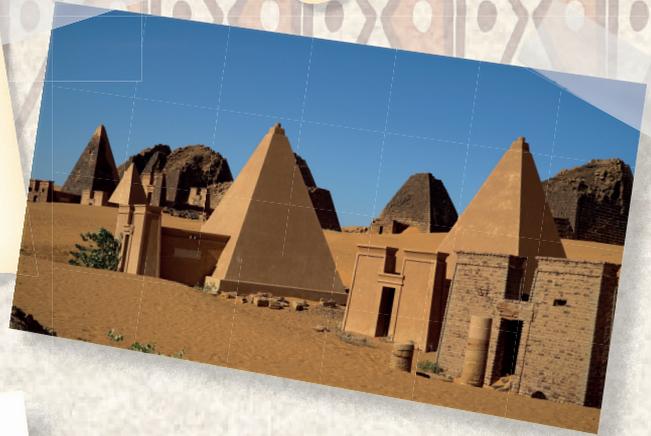
These 15 gates are as old as the walls, but are now mostly ruined. Sites inside the Walls include Dala Hill, Kurmi Market and Emir's Palace.



Nubian pyramids, Sudan

The Nubian pyramids can be found in different areas in the north of present-day Sudan. The rulers of the ancient Kushite kingdoms built them over hundreds of years.

The first Nubian pyramids were built at El-Kurru in 751 BC. They imitate Egypt's pyramids, but have steeper slopes. They are built with blocks of granite and sandstone, and seem to align with certain stars. The tombs of royalty and wealthy citizens are found beneath the pyramids and not inside, like those in Egypt.



There are twice as many Nubian pyramids still standing today than there are Egyptian pyramids. The most extensive site is at Meroë, where over 40 kings and queens are buried. The oldest and largest pyramid still standing is at Nuri.

High quality jewellery, bows, arrow quivers, archers' thumb rings, pottery, metal vessels and coloured glass were among the treasures that archaeologists have found.

Timbuktu, Mali

Timbuktu is a West African city in Mali that was founded in the early 12th century. It was once an important centre for trade and Islamic scholarship.

Djinguereber Mosque is one of three great mosques and one of four madrassas (educational institutions) of the University of Timbuktu. The mosques were built of mud, fibre, straw and timber in 1327.

From the 13th to 16th centuries, the university could host about 25 000 students at once. Several hundred thousand manuscripts were collected and produced of Islamic sacred texts, astronomy, maths, medicine and law. Many of these manuscripts remain.

Moroccan traders began to drive scholars out during the late 16th century and the city declined. Timbuktu declined further after the French colonised Mali in 1893. It's now a very poor city that also suffers from desertification.

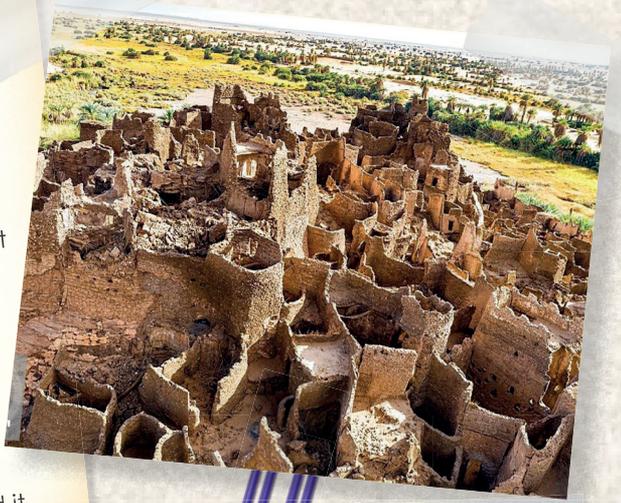


City of Djado, Niger



The ruins of Djado are found on the Djado Plateau in north-eastern Niger. It was an important trade centre. Its impressive buildings are made of mud-brick, like those found in ksars (North African fortified villages). The foundations of ksars are built using palm trunks that are covered with packed earth called adobe. It results in a strong, long-lasting structure.

No one really knows who built the city or why it was abandoned. Many believe it was founded by the Garamantes, a group of Berbers. Others believe that the Kanuris built Djado. We know that the Toubou people definitely lived there, possibly after the Kanuris abandoned it.



Some people believe that it was permanently abandoned because of desertification, while others believe that mosquitoes carrying malaria infested the local oasis. A third theory suggests that conflicts between the Toubous and Tuaregs in the 12th century forced people to leave their plundered homes.



More about Ruins

Ruins are the remains of buildings that have disintegrated because they're not used anymore, or they have been damaged by a natural disaster or people.

It's important to preserve ruins because they hold great historical and cultural value. They also help modern economies as tourist attractions. However, some ruins may be difficult to preserve because of their location.

?! Get this!

Ruins become UNESCO Heritage Sites when they are unique to a region and represent a significant stage in our history, as well as our diversity.

For example, if they are on the coast, rising sea levels may cause erosion. It's also expensive and time consuming to preserve ruins, and skilled experts are needed. Conservation may also be impractical if there is no income from tourism.

The Language of Time



Words by Su-Mia Hoffmann
Illustrations and layout by
Alexandra Botha-Green

I am writing this article on a Thursday in August. These words are how we define the time we find ourselves in. We use terms like Thursday, August, moment, soon, and now-now every day. But do we ever stop to think where any of these terms come from and what they mean? Let's take a moment to think about the rich history of the vocabulary of time.

Measures of Time

We measure long periods of time in several ways. Some of these you might never even have heard of!



**1 Biennium
(2 years)**



**1 Lustrum
(5 years)**



**1 Decade
(10 years)**



**1 Century
(100 years)**



**1 Millennium
(1000 years)**

?! Get this!

The earth has existed for roughly 4.54 billion years. Geologists have divided the lengths of time and named them, from shortest to longest: ages, periods, eras and eons.

The Age we live in

An Age is a distinct period of history. Depending on who you ask, you'll get a different answer to the question, "In what Age are we?"

If you ask a geologist, they will tell you that we are in the Phanerozoic eon, Cenozoic era, Quaternary period, Holocene epoch and the Meghalayan age. Scientists determine these time periods by studying rock samples.

If you ask a historian, they will tell you we are in the Information Age, also known as the Contemporary Period, which is part of the Modern Era. Human existence is generally divided into five main historical eras: Prehistory (up to 600 BC), Classical (600 BC – 476 AD), Middle Ages (476 AD – 1450 AD), Early Modern (1450 AD – 1750 AD), and Modern (1750 AD – the Present).

The Age we currently live in is known as the Information Age. This is because it has been marked by unprecedented technological advances.



?! Get this!

In the year 525, a monk named Dionysius Exiguus suggested counting the years from the birth of Jesus Christ. From there we get BC (before Christ) and AD (Anno Domini, "in the year of the Lord" in Latin).

Calendar

Did you know that we get our calendar from the Romans? In 1582, Pope Gregory XIII proclaimed that the New Style Calendar, commonly known as the Gregorian Calendar, would be used. The Gregorian Calendar is based on the Julian Calendar – created by the famous Roman dictator, Julius Caesar!

Although the Gregorian Calendar is mostly used in the Western world, there are about 40 different calendars that are still being used all around the world. These calendars are especially used to determine religious dates. Examples of alternative calendars are the Pawukon Calendar used in Bali, the Traditional Chinese Calendar, the Islamic Calendar, and the Jewish Calendar.

Saturday

Saturn was the Roman god of fun, feasting and agriculture. This makes complete sense for Saturday.



Sunday

From Old English *Sunnandæg* which means "day of the sun". From the Latin *dies solis*. Of course, the biggest one has to come first.



Monday

From Old English *Mōnandæg* which means "day of the moon". From the Latin *lunae dies*. The moon being second also makes sense.



Days of the Week

The Babylonians, Greeks, Jews and eventually the Romans, all worked with a seven-day week. Each culture based this on their own religious beliefs. The Babylonians, Greeks and Romans based the seven days on the seven celestial bodies visible to them: the sun, moon, Mars, Mercury, Jupiter, Venus and Saturn.

Most of the English names for the days of the week come from the Old English Anglo-Saxon names, translated from the Latin. They changed most of the names to match their own deities.

Tuesday

Tiu was the Germanic god of war. Don't go picking a fight on a Tuesday now!



Friday

Frigga was Odin's wife and the goddess of love. Apparently Friday is the day of love.



Thursday

Thor was the god of thunder. In Afrikaans this is even more transparent: Donderdag.



Wednesday

Woden, or Odin, was the king of the Germanic gods. Maybe Wednesday deserves more respect.



?! Get this!

The Romans originally had an eight-day week, but were influenced by other cultures and changed to a seven-day week. From there the seven-day week spread around the world.



Months of the Year

We've used 'month' as a unit to measure time for thousands of years. A month is the approximate time it takes the moon to revolve around the earth.

We can thank the Romans for the names of our months too. Originally, the Romans had 10 months. The names of our months come from Roman gods, festivals, rulers and numbers.



January

Janus was the Roman god of beginnings and endings. He had two faces, one looking ahead and one looking behind. No chance of sneaking up on him!



February

Februa were Roman rites of purification in preparation for Spring. Maybe that's where spring cleaning comes from?



March

Mars was the Roman god of war. Don't pick a fight in March either, please.



April

The Latin word *aperire* means "to open". Some traditions also say that the month's name comes from the goddess Aphrodite, the goddess of love. Maybe we should move Valentine's Day?



May

The nymph Maia was associated with the earth. She lived alone in a cave. Perhaps don't try to be too much like her.



June

Juno was the wife of Jupiter, the king of the gods. She is the goddess of women, marriage and childbirth. Some scholars think Romans named the month after her in 396 BC.



July

The month was changed from Quintilis ("fifth") to July to honour the Roman ruler, Julius Caesar. This decision was made by Julius himself.



August

The month was changed from Sextillia ("sixth") to August to honour the first Roman emperor, Augustus. This decision was also made by Augustus himself.

September, October, November and December

Come from Septimus, Octavius, Nonus and Decimus, meaning seventh, eighth, ninth and tenth. How original!



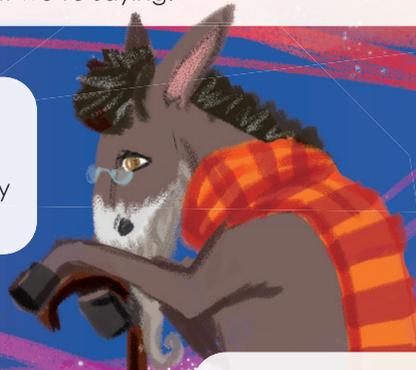
Time is a Funny Thing

The terminology of time is part of our vocabulary. Sometimes we don't say what we mean, or we don't know the meaning of what we're saying.



Yonks

Informal British term for a very long time. The origin is unclear, but it may be related to "donkey's years".



Jiffy

A short period of time. In computer terms, a jiffy is 0.01 seconds.



Two Shakes

Very quickly. Comes from the full phrase "two shakes of a lamb's tail". A lamb shakes its tail very quickly.

Two Ticks

Also means very quickly. It refers to the tick of a clock. So, technically, two ticks is two seconds.



24/7

From the number of hours in a day and days in a week: twenty-four hours a day, seven days a week. Meaning always.

Five minutes

Literally meaning 300 seconds, but really could be any amount of time, especially when someone asks for "five more minutes".

Forever

Literally meaning a limitless time, but more commonly used figuratively meaning something that seems endless.

Now

South Africans have our own vocabulary, especially relating to this little word. This is what it means when someone says they will do something...

Now: A little later, maybe, but definitely not really now.

Right now: More probable the thing will actually get done, still no guarantees.

Now-now: soon-ish. From Afrikaans "nou-nou".

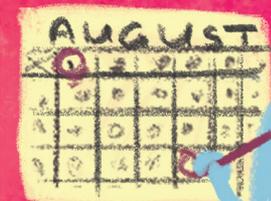
Just now: A little later. The actual time is unspecified.

In the blink of an eye

Very quickly. An actual blink is between 0.1 and 0.4 seconds.

Soon

In or after a short time. However, "see you soon" could mean in a few days or never.



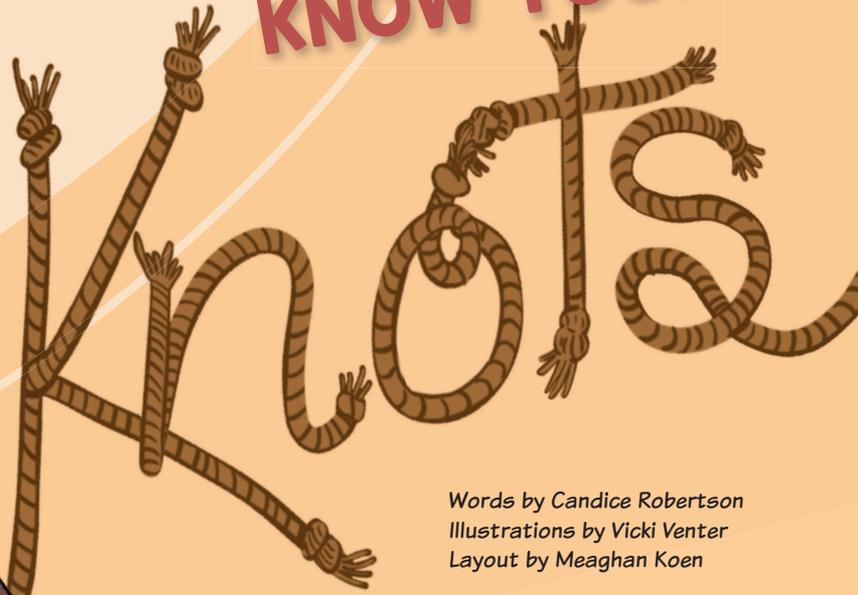
Once in a blue moon

An idiom meaning rarely. A blue moon is when there are two full moons in a month, and it happens every few years.

?! Get this!

The earth takes 365 days, 5 hours, 48 minutes and 45.25 seconds to revolve around the sun. This is called a solar year or solar calendar.

KNOW YOUR



Words by Candice Robertson
 Illustrations by Vicki Venter
 Layout by Meaghan Koen



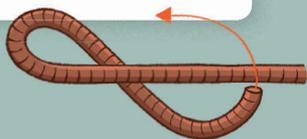
Did you know that there is more than one way to make a knot? Tying knots can be an art form, with over a hundred different kinds to make. From tying your shoelaces, to tying a ribbon on a gift or repelling down a mountain, there are knots for every occasion and need. Some knots can be used in survival situations, so here are a few useful knots that everyone should know.

Figure of Eight Knot

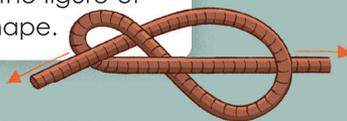
The Figure of Eight knot is one of the strongest knots! It forms a secure, non-slip loop at the end of a rope. It is a quick and convenient knot, and is also non-binding. This means that it is not used to bundle things together.

How do I tie a Figure of Eight knot?

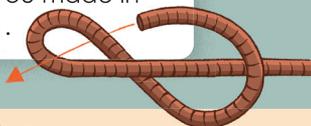
1 Form a loop at the end of the rope.



2 Pass the tail under and around the standing end. This will create the figure-of-eight shape.



3 Complete the knot by threading the tail down through the loop you made in Step 1.



4 Pull both sides to tighten the knot.



When do I use a Figure of Eight knot?

The Figure of Eight knot is very important in both sailing and rock climbing. This is because it is strong, secure and easy to visually inspect. This knot is used to stop ropes from running out of retaining devices. When the Figure of Eight knot is tightened, it will jam. However, it can be undone without having to cut the rope.

Take Note!

Jamming is often considered a weakness in most knots, as we typically re-use our ropes and need to remove all knots from a rope before we re-use it.

Slip Knot

The Slip knot is a useful stopper knot, which means that it prevents a rope from slipping through a hole. A Slip knot can be loosened instantly by pulling on the tail.

How do I tie a Slip knot?

1 Form a loop at the end of the rope.

2 Using the short end of the rope, prepare a bight (fold the rope in half to create another loop).

3 Tuck the bight through the loop and tighten the knot.

4 You can pull on the short end to easily untie the Slip knot.

When do I use a Slip knot?

The Slip knot is one of the most commonly used knots – it's even used in knitting and crocheting to cast on! Slip knots are also used to tie gear to an anchor point – like tying your rock-climbing gear onto your backpack! Overall, it can be used to tighten around any object when you apply tension.

Take Note!

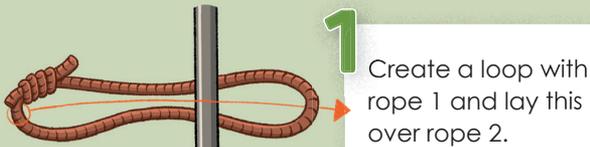
The Slip knot can be untied quickly, so it should be used only as a temporary stopper knot.



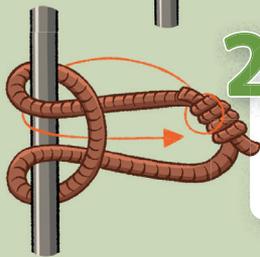
Prusik Knot

The Prusik knot is used to attach a loop of cord around a rope. These knots are designed to be bidirectional, which means that they can freely move forward or backward along a line without any issues.

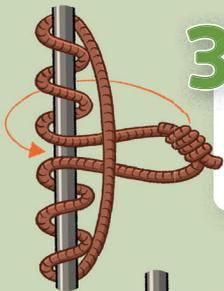
How do I tie a Prusik knot?



1 Create a loop with rope 1 and lay this over rope 2.



2 Pass the ends of rope 1 around rope 2, and through the loop you created in Step 1.



3 Repeat Step 2 three times, passing the ends of rope 1 through the loop each time.



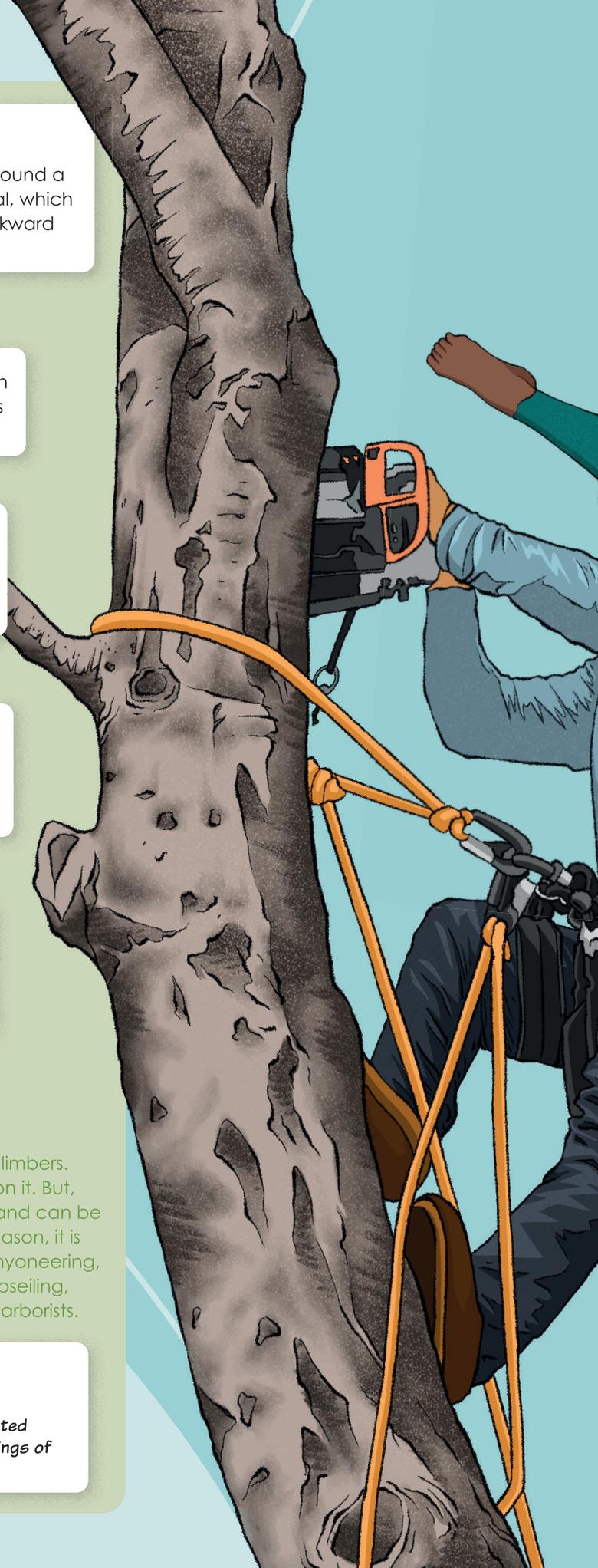
4 Make sure the turns lie neatly beside each other and pull the knot tight.

When do I use a Prusik knot?

The Prusik knot is often used to rescue mountain climbers. The knot will jam if downward pressure is placed on it. But, when the weight is removed, the knot frees itself and can be pushed up or down the rope with ease! For this reason, it is commonly used in mountaineering, climbing, canyoneering, caving and more. The Prusik knot is also used in abseiling, ziplining, creating shelter when camping, and by arborists.

?! Get This!

Dr Karl Prusik, an Austrian professor of music, invented this knot during World War I to mend the broken strings of musical instruments.





Fisherman's Knot

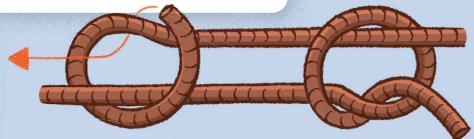
The Fisherman's knot is used to quickly tie two ropes together. However, it is important to make sure that the ropes you are tying together have the same diameter! The Fisherman's knot is compact and jams when it is tightened. This means that it is very secure and is difficult to untie after weight has been placed on it. The working ends of the knot can also be cropped very close to the knot.

How do I tie a Fisherman's knot?

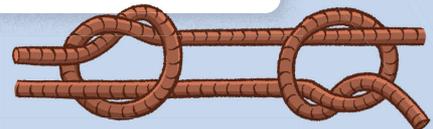
- 1 Loop rope 1 around rope 2 and tighten it. This creates an Overhand knot.



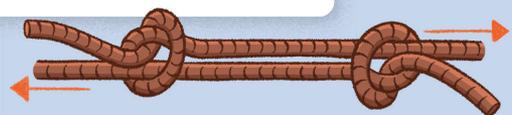
- 2 Move down rope 2. Create another Overhand knot by looping rope 2 around rope 1 in the same way as Step 1.



- 3 Work the knots tight so they have a good uniform shape.



- 4 Pull the ropes together until the knots are touching to complete the Fisherman's knot.



?! Take Note!

To help loosen a stubborn knot, roll it with your palm against a rock. For really stuck knots, soak the knot in water. On the other hand, you can also create a more secure knot by soaking it before tying, and letting it dry.

When do I use a Fisherman's knot?

The reliable Fisherman's knot can be used for anything and everything, from around the house to heavy industrial tasks! It is commonly used in climbing and other sports. The knot can also be easily tied with cold, wet hands, which makes it ideal for fishing. In knitting, it is used to join two strands of yarn or wool.

Wild Wordsearch

Layout by Chanté Vorster

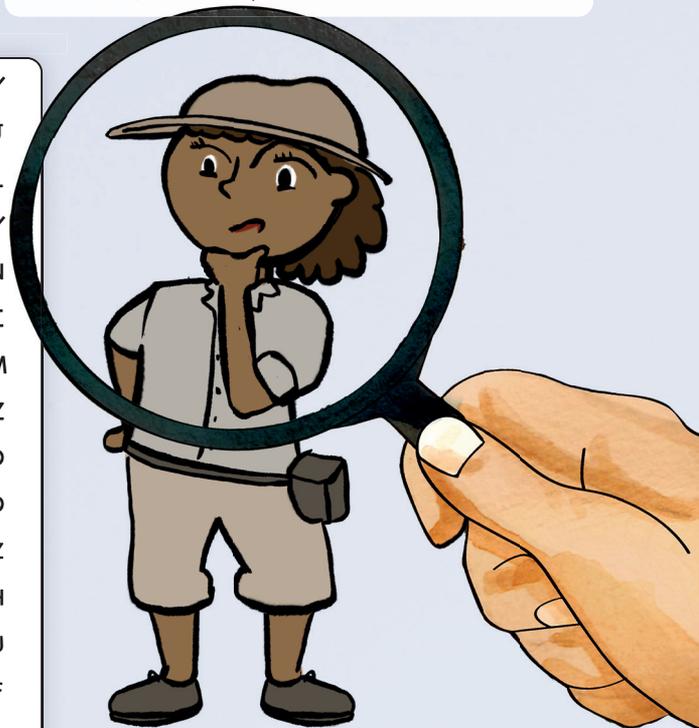


How to play

In this wordsearch, there are 12 words which are hidden all over this magazine. Search the magazine to help you answer the questions below, and find the answers in the wordsearch!

1. Which berry is the only true berry?
2. Which small nocturnal insect has a wingspan of 12cm?
3. What is another word for 'transformation'?
4. Where was Andy bitten by the travel bug?
5. Which chemical metal dust do trick candles use?
6. Which famous pet received letters at the White House?
7. What does the 'F' stand for in NFT?
8. What is the smallest fox in the world?
9. Which city got its name from its stone walls?
10. Which calendar do we use the most?
11. Which knot can be quickly untied and is used as a temporary stopper?
12. Which animal can follow scents that are up to 3 days old?

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



Find the answers on page 3

DOCTOR RIP

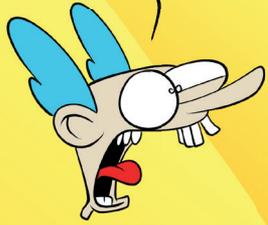
DEATH BY FIRE

DOCTOR RIP EXPLAINS

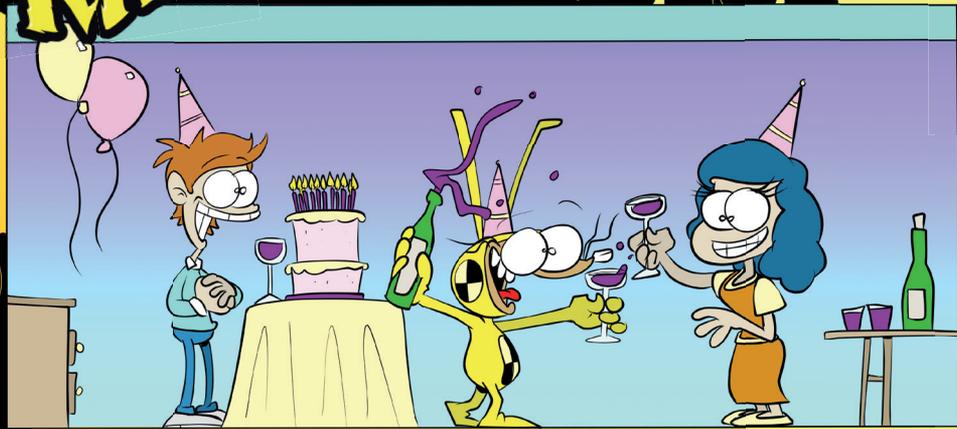
AROUND THE WORLD, MORE THAN **200 000** PEOPLE DIE EVERY YEAR AS A RESULT OF BURNS CAUSED BY FIRE.



THAT AMOUNTS TO AROUND **560 DEATHS** EVERY DAY!



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