The African Penguin

The African penguin is the only penguin species breeding in Africa, and is located at a number of breeding sites along the Namibian and South African coast, within the Benguela upwelling system. They breed primarily on coastal islands, although a few mainland colonies also exist. African penguins numbered in their millions in the early 1900s, but now, approximately 26 000 breeding pairs occur in the wild.

Kelp gulls are a threat to penguin eggs and small chicks. If an adult penguin leaves its eggs or small chicks unguarded, they will quickly be predated on by opportunistic kelp gulls.

The population has declined by close to 90% and according to the IUCN (The World Conservation Union), it is now considered to be an endangered species. This means that the African penguin is considered to be facing a very high risk of extinction in the wild. Penguins are considered to be indicators of the health of the marine ecosystem. A declining penguin population suggests that something is out of balance.

Man-made, artificial penguin homes protect penguins against extreme temperatures and attacks from kelp gulls. Their natural habitats were destroyed by humans scraping away too much guano, which they normally use to build their houses.

GPS technology is used to find out where penguins go to feed, how far they swim, how long they stay away from their colonies, and how deep and frequently they dive. This information is used as a guide to indicate how hard they have to work to find their fish.

Did you know?

- Every penguin has a unique spot pattern on their belly.
- They can swim up to 20 km/hr when hunting for prey, and can dive up to 130m deep.
- They feed mainly on sardine and anchovy.
- Only about 26 000 pairs left in the wild now, a decline of more than 90% drop in 50 years.
- They moult once a year, replacing all their feathers with new ones.

Sometimes, at the end of the breeding season, some chicks are abandoned by their parents who goes to sea to feed and fatten up to survive their moult.

Some new & interesting words:

- Colony: a group of animals of the same type living together, usually for mutual benefit such as stronger defences and the ability to attack bigger prey.
- Incubate: To sit on eggs to provide heat and a safe favourable environment to allow eggs to develop and hatch.
- Predation: one animal killing another, usually for food.

GPS technology is used to find out where penguins go to feed, how far they swim, how long they stay away from their colonies, and how deep and frequently they dive. This information is used as a guide to indicate how hard they have to work to find their fish.

CapeNature

www.capenature.co.za
Although quad biking on Mars looks fun, based on the images that Mars Curiosity rover is sending back, it doesn’t look like the kind of place where I’d like to live. The days that people thought there might be Martians running around on Mars are long gone, but there is evidence that there were oceans and rivers on the planet which could mean that there was once life.

It’s space week from 4 to 10 October, so why not find your way around the stars and planets. If you have a smart phone you can ask your parent to download a Night Sky map. Just point your phone at the sky and it will identify what’s up there. Mars is sometimes confused with a bright start called Antares as both are a glinting red in the night sky. From 16 to 19 October they will be close together one hour after sunset, so it’s a good time to compare them.

Check out our Bet You Didn’t Know page with Angry Birds! In case you were wondering … this is because Curiosity makes a star appearance in Angry Birds Space!

Bringing things back to Earth, we’re happy to announce the winners of the Young Chefs Competition, on page 14. Here is a photograph of the judges, who had the tough job of tasting your amazing dishes and picking winners.

Dare to Explore!

October’s subscribers of the month are Marinus Wait, 12, from Richards Bay and Mikal Potgieter, 10, from Bloemfontein. They’ve each won a set of six piece book set of the Sherlock Holmes’ Baker Street Boys series valued at R500 per set. The Baker Street Boys is a thrilling, fast-paced adventure series set in old London. Sherlock Holmes’s gang of street-urchin detectives help solve Sherlock’s crimes, as well as tackling mysteries of their own. For more information about the series go to www.panmacmillan.co.za or call 011-731-3440.
Inside

Looking for Lemurs
Playing hide-and-seek with lemurs in Madagascar.

Night Sky Heroes
Bats are true heroes—find out why.

Zapped!
Scientists follow a lightning storm in an electrifying chase.

Spooky Stories
Fact or fiction? You decide.

Frankenweenie
NG KIDS goes behind the scenes of the new movie.
We need 5,000 people to set a running record, so ask everyone you know to participate!

HELP NG KIDS BREAK
A GUINNESS WORLD RECORD!

RUN FOR THE PLANET TO STAY HEALTHY. HERE’S HOW:

What: To break the record for the most number of people running or walking 100 metres in a 24 hour period.

How: Pledge to participate on kids.nationalgeographic.com/run-for-the-planet/. Download your record-breaker’s pack, including official rules and “fill-in-the-blank” verification statements for Guinness World Records’ documentation. You can do it alone or organise an event with friends and family. But remember to fill in the documentation, so you’ll be counted! For more information and to let us know about your event, contact Lisel Daniels at isol.daniels@media24.com or call her on 021-443-9857.

When: You need to do your 100-metre run any time between 6 p.m. on Friday 26 October 2012 and 6 p.m. on Saturday 27 October 2012.

MAKE SURE YOU FOLLOW THE RULES SO THAT YOUR PARTICIPATION COUNTS!
Go online to pledge to participate and get official rules. kids.nationalgeographic.com/run-for-the-planet/

PLUS!

• Free awesome fun digital pack with pledge!
• Participation certificate!
BIRTHDAY GIRL IN OCTOBER

We bet Willow Smith loves dressing up. After all, her birthday falls on Halloween. The daughter of actors Will Smith and Jada Pinkett-Smith and her older brothers have inherited a love for show business. Willow made her acting debut when she was only seven in the film *I am Legend* and released her fourth single, *I am Me*, in July 2012. Happy 12th birthday on 31 October!

Perfect Pasta

A South African chef scored 100 out of 100 at the World Pasta Championships held in Italy, the home of pasta, earlier this year. Giorgio Nada, a restaurant owner in Cape Town, battled three world-class chefs in front of a panel of judges. He filled his pasta with beans grown in his garden in Cape Town which the judges thought was perfect in every way! Feeling inspired? Turn to page 14 to meet the winner of the NG KIDS Young Chefs competition.

MESSAGE FROM MARS

Receiving tweets from another planet sounds pretty cool. Curiosity, a rover the size of a beach buggy, has been tweeting its discoveries to over a million followers on Earth. Here’s what @marscuriosity tweeted recently: “Yes, I’ve got a laser beam attached to my head. I’m not ill-tempered; I zapped a rock for science.”

After a nine-month journey, Curiosity entered the Martian atmosphere at 21 000 kilometres per hour on 6 August 2012. A giant parachute and a massive crane lowered the rover gently onto the planet. Charles Bolden of NASA says it will seek to answer the age-old question of whether life ever existed on Mars. It also takes NASA one step closer to president Obama’s mission to send astronauts to Mars by 2030. It’s the perfect destination for 4x4 enthusiasts!

MARS FROM YOUR BACKYARD

In October you can spot Mars just after sunset until it sets after 9 p.m. Even to the naked eye, Mars has an orange red colour, but you can see this better with binoculars or a small telescope.

DID YOU KNOW?

It’s the year of the bat! This was started by scientists who want the world to know this message: the world’s only flying mammals are exceptional, delightful, fascinating and likeable. Find out more about bats on page 18.
A PUZZLE WHIZZ

A puzzle-mad boy is making world headlines after he helped his dad solve a science problem about how crystal atoms fit together. It has been puzzling his dad for years. New Scientist magazine interviewed 11-year-old Linus Hovmöller Zou and asked him how it happened.

“My father and I did some Sudoku. He said ‘Let’s put this number here and this number here,’ but I said he was wrong. Then he said ‘You’re better at puzzles than me’ and he asked if I wanted to help with this thing he’d been working on for a few years. We sat down and found the solution to some of these crystals.” They solved the scientific puzzle in two days and then had it published under both their names. Great team!

5 REASONS TO START A “MEAT-FREE MONDAY” TRADITION IN YOUR FAMILY

1. World Vegetarian Day is on 1 October every year and this time it’s on a MONDAY!

2. Reduce your carbon footprint. A veggie burger produces much less carbon dioxide than a meat one.

3. Be part of a club. You can pledge your support on www.supportmfm.co.za

4. It’s good for your health. Veggies are full of good vitamins and minerals.

5. It’s a great way to learn new recipes!

A puzzle-mad boy is making world headlines after he helped his dad solve a science problem about how crystal atoms fit together. It has been puzzling his dad for years. New Scientist magazine interviewed 11-year-old Linus Hovmöller Zou and asked him how it happened. “My father and I did some Sudoku. He said ‘Let’s put this number here and this number here,’ but I said he was wrong. Then he said ‘You’re better at puzzles than me’ and he asked if I wanted to help with this thing he’d been working on for a few years. We sat down and found the solution to some of these crystals.” They solved the scientific puzzle in two days and then had it published under both their names. Great team!

5 REASONS TO START A “MEAT-FREE MONDAY” TRADITION IN YOUR FAMILY

1. World Vegetarian Day is on 1 October every year and this time it’s on a MONDAY!

2. Reduce your carbon footprint. A veggie burger produces much less carbon dioxide than a meat one.

3. Be part of a club. You can pledge your support on www.supportmfm.co.za

4. It’s good for your health. Veggies are full of good vitamins and minerals.

5. It’s a great way to learn new recipes!

Nutriphase has specifically balanced and packed with essential vitamins and minerals. It’s formulated to ensure your cat develops strong bones, tough muscles and a shiny coat.

So you can trust us to help keep your feline friend happy and healthy at every stage of its life. When you add Nutriphase to your shopping list, you’ll be giving your cat all the goodness it deserves.
There's no sugar in these Halloween treats—just tons of fur. Some people dress their pets up for Halloween and NG KIDS found the craziest costumes. Some of these guys are so funny, it's scary.

**IT'S KIND OF WEIRD GOING FROM PAWS TO CLAWS.**

**YUP, I'M LOOKING GOOD!**

**TESLA THE POMERANEAN LOOKS SNAPPY IN HIS CRAYFISH COSTUME.**

**WILLIS THE PUG MIGHT LOOK AS IF HE'S STANDING ON TWO LEGS, BUT THIS DOG OF STEEL DOESN'T HAVE SUPERPOWERS. THE "ARMS" ARE FAKE AND THE "LEGS" ARE HIS FRONT PAWS. HIS BACK END IS COVERED BY THE CAPE.**

**ELSITTA THE MINIATURE CHIHUAHUA SPORTS A COOL HAIRDO AND SHADES.**

These pets like wearing costumes, but yours may not. Never force your pet to do something it does not want to do.
If you’re planning anything for Halloween, follow these tips to make sure pets stay happy and safe.

- Watch your pet carefully when you open the door for trick-or-treaters so that it doesn’t dart outside.
- Keep nervous pets in a closed room so they won’t get upset by the doorbell. Fill the room with your pet’s favourite toys and blankets to keep it happy.
- If you dress up your pet, check that the outfit is comfortable and allows the animal to breathe and walk safely.

The idea of Halloween started in what is now the United Kingdom and comes from a 2,000-year-old festival to scare off ghosts.

Trick-or-treating started in England hundreds of years ago during parades that honoured people’s ancestors. As part of the festivities, people would ask their neighbours for cakes.

Baking a coin into a loaf of bread on Halloween was an old Irish custom. Whoever found the coin was supposed to have good fortune.
Check out these outrageous facts.

An astronaut once hit a golf ball on the moon.

Bald eagles can use their wings to paddle through water.

Herring communicate by passing wind.

The first microwave oven weighed over 340 kilograms.

Some toxic frogs produce sugar to sweeten their poison.

In Austria, bouquets with an even number of flowers are considered bad luck.

A cuttlefish’s pupils are shaped like W’s.
THE TOP 10 OF EVERYTHING 2013
IS SIMPLY BURSTING WITH FACTS THAT WILL
INTRIGUE, EXCITE AND AMAZE YOU.

DISCOVER
the deadliest, tallest, best-selling, fastest, slowest,
longest, oldest, biggest, smallest, lightest, brightest, deepest,
biggest, tallest, fastest, slowest, longest, oldest, biggest, smallest,
longest, oldest, biggest, smallest, lightest, brightest, deepest,
biggest, tallest, fastest, slowest, longest, oldest, biggest, smallest,
lightest, brightest, deepest,

UNCOVER MORE THAN JUST THE NUMBER ONE.
THE TOP 10 OF EVERYTHING 2013
IS SIMPLY BURSTING WITH FACTS THAT WILL INTRIGUE, EXCITE AND AMAZE YOU.

1. Did you know... that the country with the most dinosaur fossils is the USA?

2. Did you know that... the world's oldest man is 114 years old?

3. Did you know that... on the 3rd of November 1957, the first dog in space, Laika, went up in Sputnik 2?

4. Did you know that... Sir Roger Bannister was the first to run a mile in under 4 minutes?

5. Did you know that... Steve Austin has won more Royal Rumbles than anyone else?

6. Did you know that... the two final instalments in the Harry Potter DVD series rank in the Top 3 DVD sales?

7. Did you know that... spoken in most countries, that English is the language office...

8. Did you know... that the most aggressive breed of dog is a Dachshund?
9 mega cool facts about Mars (hosted by Angry Birds)

1. Mars has 2 small moons.

2. One volcano on the planet is about 3 times taller than Mount Everest.

3. A year on Mars lasts nearly twice as long as one on Earth.

4. It takes 6 to 11 months for a spacecraft to travel from Earth to Mars.

5. Mars, which is covered in red rust, is nicknamed the Red Planet.

6. Astronauts might be visiting Mars by 2035.

7. You could jump 3 times higher on Mars than on Earth.

8. The sky on Mars appears to be the colour of butterscotch.

9. The average temperature on Mars is -62°C.
This year NG KIDS readers added a dash of imagination and a cup of fun when creating their winning recipes for the Young Chefs Competition. We had a lot of fun tasting the finalists’ recipes and it was hard to pick winners! Meet our top chefs and winners of the Young Chefs Competition, brought to you by Redro.

The Prizes

Grand Prize

The winner in each category receives a hamper valued at R1 875 with separate kits for a cake, chocolate cookies, cupcakes, gingerbread, pancake and pizza. They also win a year’s membership of The Cooking Club for Kids worth R150 (with apron and chef hat), as well as The Snappy Chef Induction Stove with its heat-resistant hot plate, valued at R999, all courtesy of The Cooking Club for Kids.

Ready, steady, cook! The cooking kits are designed with little hands in mind, made of silicone that resists heat and is cool to the touch. Each kit contains essential tools and recipes that will get you baking in no time! The Cooking Club for Kids was created to bring families back to basics, spending time in the kitchen and having fun together.

Visit www.thecookingclubforkids.co.za for more information.
**CATEGORY A – BRAIN AND BODY FUEL**

**WINNER:** Rebecca Oosthuizen, 10, Bromhof

**TITLE:** Salmon and Salad Surprise

**YOU WILL NEED**
- 1 spinach leaf
- 1 teaspoon chopped chives
- 1/2 tomato (chopped)
- 1 tablespoon of sunflower seeds and linseed
- 1 tablespoon of olive oil
- 1 teaspoon of freshly squeezed lemon juice

**METHOD**
1. Mix mango with yoghurt and set aside.
2. Make guacamole with avo, pieces of spinach and lemon juice.
3. Roll up dollops of filling in slices.
4. Toss ingredients for salad and plate with salmon rolls.

**RUNNERS-UP:**
- Gerdré Van Niekerk, 11, Middelburg
  - Title: Redro Salmon Burger
- Sinead Storm de Jager, 9, Northriding
  - Title: Toasted Soy and Linseed Boats on a Sea of Tomato Soup

**CATEGORY B – WEIRD BUT TRUE SANDWICH**

**WINNER:** Claire Bodley, 14, Port Elizabeth

**TITLE:** Sweet Bacon Sandwich

**YOU WILL NEED**
- 2 slices French toast (made with bread, milk and egg)
- 2 slices lean bacon
- Cheddar cheese
- Feta cheese (optional)
- Syrup
- Onion marmalade
- Peppadews (optional)
- Fresh berries if available

**METHOD**
1. Dip bread in mixture of egg and milk and fry in butter.
2. Add cheese, peppers, bacon onion marmalade to toast.
3. Top with syrup and berries.
4. Add second slice of French toast or serve as is.

**RUNNERS-UP:**
- Aidan Connor McMeeking, 7, Plumstead
  - Title: Peanut Butter and Popcorn Sandwich
- Ingrid Klopper, 7, Durbanville
  - Title: Redro Rainbow Swimmer

---

**Prizes sponsored by**

The Cooking Club for Kids

NATIONAL GEOGRAPHIC
2. Toast bread until light brown, spread with fish spread.

3. Add a slice of “flower” cheese, another slice of “flower” toast, fish spread and cheese.

4. Decorate with red peppers, raisins and gherkins.

5. Place on a white plate with watercress, add grape slices and chillies for garnishing your Party Flow with Redro!

You will need:
- Original Redro fish spread
- 12 slices white bread
- 2 slices thin cheese
- 2 gherkins
- 5 jumbo raisins
- 8 halved green grapes
- 1 sliced red pepper
- watercress, chillies, lime quarters

Method:
1. Use flower-shaped cookie cutter to cut shapes out of bread and cheese.

RUNNERS-UP:
Jaden Kushner, 7, Corlett Gardens
Title: Rainbow Jelly Stacks

David Nickisson, 10, Lytton
Title: Power Pops

You will need:
- mushrooms
- haloumi
- onions

For the marinade:
- soy sauce
- garlic
- oil
- sugar
- salt and pepper

Method:
1. Marinate mushrooms, haloumi and onions.

2. Put mushroom and sliced haloumi on skewers.
5. Add braaied mushroom, haloumi, onions and salad to vetkoek.
6. Top with gherkins, tomato sauce, piccalilli, grated or sliced Cheddar or Gouda cheese and sliced tomato. Cover with braaied vetkoek and enjoy.

RUNNERS-UP:
Brigitte Moser, 12, Rondebosch
Title: Redro (or retro) Mince Parcels

Jane Buys, 12, Mooi River
Title: Banana Feast

The first 30 entrants receive a year’s membership of The Cooking Club for Kids, which is worth R150 and includes an apron and a chef hat.


Sponsored by

Prizes sponsored by

WWW.BOKOMO.CO.ZA AND FIND US ON FACEBOOK
WIN SKATE GEAR!

CALLING ALL SKATER BOYS AND GIRLS ...

Get ready for summer with cool outdoor skate gear!

28 LUCKY READERS can win Gunslinger Longboards, Chicago Quad Roller Skates and Heel Skates valued at over R17 000.

The Chicago Quad Roller Skates for boys and girls are standard-level skates with an authentic Chicago Boot. Both skates have a padded ankle cuff for support and comfort with an adjustable truck for an easy fit. These skates are lightweight and suitable for indoor and outdoor skating fun.

The two-wheel Roller Kidz Heel Skates turns any pair of shoes into flashing roller skates! They are strong and adjustable - just strap them to any pair of shoes and create a blaze of colour as you zoom around.

HOW TO ENTER

Answer this easy question!

Question: What is a Gunslinger Longboard made of?

- E-mail* your entries to competition@ngkids.co.za and include your preferred choice of prize – “NGK Longboard”, “NGK Chicago Skates” or “NGK Heel Skates” – in the subject heading. We’ll also need your name, surname and contact number.
- SMS* “NGK Longboard”, “NGK Chicago” or “NGK Heel” followed by your answer, name, surname, e-mail address and city to 33970*.

You can enter as many times as you like, but separate entries are required for each item.

COMPETITION CLOSES 24 OCTOBER 2012.

SHOP ONLINE FOR THESE AND OTHER GREAT KIDS SKATING GEAR AT WWW.ROLLERKIDZ.CO.ZA OR CALL 083-445-3165 FOR MORE DETAILS.

WHAT’S UP FOR GRABS?

- FOUR Gunslinger Longboards with wheels
- TWO pairs of Chicago Skates CRS 105 for boys (biggest size available: SA size 4)
- TWO pairs of Chicago Skates CRS 100 for girls (biggest size available: SA size 4)
- 20 pairs of adjustable Roller Kidz Heel Skates

DID YOU KNOW?

Keith Hockley (alias the Sheriff) and Ian Pennefather (alias the Marshall) launched Gunslinger Longboards in 2010. The boards are made from bamboo or maple wood.

*GO TO PAGE 39 FOR TERMS AND CONDITIONS.
Amongst its guest chalets, the lodge has eight bat hotels that house about 2 800 bats. The three most common species at Ngwenya Lodge are Angolan free-tailed bats, Sundevall’s leaf-nosed bats and Wahlberg’s epauletted fruit bats, but other kinds are also seen flapping through the night sky. There are two groups of bats. The megabats are the fruit eaters, while the microbats eat insects and make up over 70 per cent of all the species.

Every day at dusk, this air force takes off in squadrons of about thirty at a time for a nightshift of mozzie munching. The launch lasts about half an hour. Mimi Naude, who runs the bat project, says guests enjoy watching the display and learning more about the flying mammals. “It does add value to their visit, but helping to protect our guests from malaria is the most important thing,” she says. Each bat can catch up to 600 of these deadly bugs in an hour – that means thousands of malaria mosquitoes are wiped out every night without any dangerous chemicals. “Bats are the natural predators of many harmful pests,” says bat expert Nigel Fernsby, who has often visited Ngwenya to do research. “They help to control diseases like yellow fever and African horse sickness, and they also protect farmers’ crops from pests like corn worms.”

DID YOU KNOW?
Bat wings are also useful nets for catching prey in midair.

AIR RAID!

Amongst its guest chalets, the lodge has eight bat hotels that house about 2 800 bats. The three most common species at Ngwenya Lodge are Angolan free-tailed bats, Sundevall’s leaf-nosed bats and Wahlberg’s epauletted fruit bats, but other kinds are also seen flapping through the night sky. There are two groups of bats. The megabats are the fruit eaters, while the microbats eat insects and make up over 70 per cent of all the species.

Every day at dusk, this air force takes off in squadrons of about thirty at a time for a nightshift of mozzie munching. The launch lasts about half an hour. Mimi Naude, who runs the bat project, says guests enjoy watching the display and learning more about the flying mammals. “It does add value to their visit, but helping to protect our guests from malaria is the most important thing,” she says. Each bat can catch up to 600 of these deadly bugs in an hour – that means thousands of malaria mosquitoes are wiped out every night without any dangerous chemicals. “Bats are the natural predators of many harmful pests,” says bat expert Nigel Fernsby, who has often visited Ngwenya to do research. “They help to control diseases like yellow fever and African horse sickness, and they also protect farmers’ crops from pests like corn worms.”

DID YOU KNOW?
Bat wings are also useful nets for catching prey in midair.
STEALTH MODE

Pilots can’t rely on their eyes when they fly aeroplanes in the dark, so they use instruments to find their way. Though microbats can see quite well, they don’t hunt by sight, either. Their special instrument is echolocation. A bat makes squeaks that are so high-pitched, humans can’t hear them. “When these sounds hit objects, they bounce back as echoes, telling the bat about its environment. That’s how they avoid obstacles and find prey even on the darkest nights,” Nigel explains.

Bats are the only mammals that can truly fly. And they do it even better than birds! Bat wings are perfectly designed for aerobatic flying – they’re thin, light and nimble. They are made of two delicate layers of skin stretched over arms and very long fingers, which the bats can move to change the wing’s shape. Microscopic sensors allow bats to feel how well air is flowing over their wings, so they can adjust them to be more aerodynamic. A bird’s wings are attached to strong chest muscles that allow them to flap up and down. A bat’s wings are attached to powerful shoulder muscles, so they seem to pull themselves through the air – almost like a swimmer doing the butterfly stroke.

DID YOU KNOW?
Most bats drink by skimming over water and scooping up one drop at a time.
HANGING OUT IN THE HANGARS

After a long night of pest control and gardening, bats fly home to their roosts to sleep. These are usually dark caves or shady treetops, but bats also like roofs and old mines. Hanging upside down to sleep might seem odd, but there are good reasons why bats do this. No other flying animal can hang upside down, so bats don’t have to compete for their home. Hanging under leaves or from cave roofs also keeps them hidden and out of a predator’s reach. But the best reason is that it puts them in the perfect take-off position. Bats can’t launch themselves into the air like most birds can. “Their wings don’t create enough lift to take off and their hind legs are so small and weak, they can’t make a running start either,” Nigel explains. Instead, they use their front claws to crawl to a high spot and then fall into flight. By sleeping upside down, they can make a very quick getaway if they have to. A bat’s body is designed for sleeping upside down. They don’t use any of their muscles to hang on – only to let go. They also have one-way valves in their arteries to keep their blood flowing properly when they’re hanging.

DID YOU KNOW?

Sleeping bats fold their wings around their bodies to keep warm.

THE SUPPLY CREW

Not all soldiers are out there fighting enemies every day. Someone has to take care of the territory so it can support life. This is where fruit bats shine, even though they are a messy lot. They bite off a mouthful of fruit, then fly away to eat it somewhere else. After chewing the fruit and swallowing the juice, they spit out the pulp and seeds. This might seem annoying if they choose your patio as their picnic spot, but they’re doing the world a favour. About nine out of ten new trees in the African rainforest grow from seeds dropped by fruit bats. A single bat can transport and drop 60,000 seeds in one night. Bats also help to pollinate plants like the baobab tree, which only flowers at night.

Bat dung, or guano, is rich in nitrogen and makes a good organic fertiliser.

African heart-nosed bats can hear a beetle walking on sand from a height of two metres.

Bats have better hearing than any other land mammal.
OUR BATS NEED YOU!
Bats do a lot to protect and help us. They need our help and protection, too. Tell your friends and family what you’ve learnt about bats, so they’ll understand the important role these mammals play. You could join a bat interest group to find out more and go on exciting field trips — or even just become a bat watcher in your own garden. You could put up your own bat hotel at home, too. Contact an organisation such as EcoSolutions (www.ecosolutions.co.za) first to find out what kind of hotel you need for bats in your area, and where it should be.

RED ALERT
Bats have a long lifespan. Some live more than 30 years. But their breeding rate is slower than any other mammal on Earth. Bat mums usually give birth to only one pup per year and only when there is enough food and conditions are perfect. Humans make things worse by destroying bat habitat and food sources. Sometimes, bats are even poisoned out of ignorance and fear. “Almost 30 percent of Southern Africa’s bat species are threatened and almost half of those are in great danger of extinction in the wild,” Nigel says. Without bats, insects would become a very big problem and our rainforests wouldn’t grow and give us enough oxygen.

Newborn bats are pink, hairless and have only small, stubby wings.

A bat can carry insects in the bits of wing between its tail and hind legs by closing them like a pouch.

A bat can carry insects in the bits of wing between its tail and hind legs by closing them like a pouch.

The American fishing bat uses echolocation to feed on fish.
We had just started setting up our equipment. **FLASH! KA-BOOM!** Lightning **shot** and **crackled** all around us and thunder **echoed** across the field.

BY TIM SAMARAS WITH GLEN PHELAN

Every year, Earth experiences an **average of 25 million lightning strikes** during some **100,000 thunderstorms**. That’s more than **hundred lightning bolts** per second.
The blinding flash and deafening crash meant one thing. We were too close to the storm. A bolt of lightning had just split a fence post a few metres away from us. We didn’t really mind. After all, we had been driving all day to get close to lightning like this.

**ON THE HUNT**

My team and I are storm chasers. We look for lightning so we can study it. To find it, we have to find bad weather. So we chase the biggest, most violent thunderstorms. For us, bad weather is really good weather. The best way to find thunderstorms is to use Doppler radar. It bounces energy off objects such as raindrops. That creates colourful images on a computer screen to show where rain is falling. Areas of purple mean pounding rain. They also mean there’s probably a lot of thunder and lightning around.

With radar and weather reports we can often find a storm. The data tells us about its direction, its speed and power.

I’m looking at the radar now. It seems something big is brewing about three hours away from here. Time to hit the road. I climb into our van, which is loaded with computers, radios, cameras and other gear. These tools help us track and study the brewing storm.

On the road, we tell storm stories. We tell tales about amazing lightning and bad storms. It helps the time fly.

Before we get to our destination, let’s also talk about how lightning works. We need to know about storm clouds, giant collisions, and electric charges.

**OPPOSITES ATTRACT**

Lightning starts with a storm cloud. The dark cloud is made of tiny water droplets and ice crystals. As they shoot around inside the cloud, they bang into one another. This creates electric charges. Some charges are positive and they...
rise to the top of the storm cloud. Some are negative and drop to the bottom of the cloud. Positive charges also build up near the ground. They build up on trees, rooftops and even our van.

The opposite charges attract one another. Negative charges from the cloud zigzag toward the ground. Positive charges from the ground stream up into the air. When they meet, we see lightning.

**LIGHTNING BOLTS**

It may look like lightning strikes down from the cloud. In fact, the lightning you see is the return stroke. It’s going up to the cloud. You can’t tell because it happens so fast.

This cloud-to-ground lightning is the most dangerous kind. A single bolt can reach 33,000 degrees Celsius. That’s hotter than the surface of the sun. Luckily, only about 10 percent of all lightning bolts strike the ground.

More often, lightning arcs within a cloud. It makes the cloud look like it is flickering. Lightning also can leap from cloud to cloud. It can even flash over erupting volcanoes and forest fires.

**LIGHTNING UP THE SKY**

We are chasing this storm to find cloud-to-ground lightning. After three hours of driving, we pull off the road. We get out and look around.

Flat plains stretch as far as we can see. Dark grey clouds boil in front of us. We’ve found a monster storm! The sky comes alive. Lightning flashes. A second later, we hear a loud boom that makes me shudder.

I’m not surprised to hear it. Thunder often follows lightning. That’s because thunder is caused by lightning. Lightning heats nearby air to an extreme temperature. The sizzling heat makes the air expand so fast, it explodes. That’s the booming sound we hear.

Lightning and thunder happen at just about the same time. However, light travels a lot faster than sound. That’s why we see lightning before we hear thunder.

**RISKY, NOT RECKLESS**

Most lightning strikes as a storm begins. So we try to stay in front of the storm. That way we can see the most lightning.

Of course that puts us right in the storm’s path. If the storm moves faster than we expected, we’re in trouble. We could find ourselves in the strike zone. That’s where lightning shoots all around us. When that happens, we jump into our vehicles and race away.

We have to stay safe and be smart around lightning. A direct hit can kill.

We’re fairly safe in our vehicles. If lightning strikes one of them, the electricity travels through the metal to the ground.

It might puncture a tyre, but we’re okay as long as we don’t touch the metal.

Sometimes there’s no warning that lightning is coming. It can travel 190 kilometres from its cloud and strike seemingly out of nowhere. That means we could get hit even if the sky is blue above us. It’s rare, but it shows how unpredictable lightning is.

**LEAVING ITS MARK**

When lightning strikes, its heat can shatter a tree trunk or it can leave black burn marks on metal.

Lightning can even make sculptures. Imagine a storm raging over a beach or desert. When lightning strikes sand, its heat fuses the grains together. That creates a kind of glassy rock in the shape of a lightning bolt. It’s called a fulgurite.

Lightning has left its mark on me, too, but in a good way. It fascinates me. People often ask, “Why do you chase lightning?” If you have ever watched a thunderstorm, you already know part of the answer. You have witnessed the power of this force of nature. It’s thrilling.

The bigger thrill for me, though, is exploring the unknown. There’s much we don’t know about lightning. Some storms make a lot of lightning. Others make a little. I want to find out what the difference
Ancient Greeks believed that when lightning struck the sea, a new pearl was formed.

A single lightning bolt killed 68 cows on a farm in Dorrigo, Australia.

between these storms is. I also wonder how lightning finds its target. It often strikes tall objects. However, I’ve seen it smash into the ground instead of a nearby telephone pole. We don’t know why—yet. Lightning is so speedy and hot that it’s hard to study. I’m determined to unravel its secrets, though. The answers to these tricky questions could help to keep all of us safer during storms. That’s why you’ll find me out chasing storms once again this summer.

**HOW IT WORKS**

1. Positive charges form at the top of a cloud.
2. Negative charges form at the bottom of a cloud.
3. Negative charges start moving toward the ground.
4. Positive charges come up from the ground.
5. The negative and positive charges meet, completing the path from sky to ground.
6. Electricity shoots up the path. The return stroke is the flash of light we see.
Maine Coon Kitten
Playing hide-and-seek with lemurs in Madagascar is all in a day's work for National Geographic explorer Mireya Mayor.
TOWERING CLIFFS, CANYONS AND CAVES LIKE THESE CREATE A MAZE OF ROCK.
scrambled to keep up with a group of leaping lemurs but they lost me in a maze of rock. How did I get myself into this mess, I asked myself?

I was clinging to a razor-sharp rock almost 30 metres above the ground. As the sun beat down on me, sweat trickled into my eyes. I looked down. I shouldn’t have. Now fear made my palms sweat, too.

My hands started to slip. Below me, more jagged rocks rose like sharp needles. One false move and I would fall. These rocks could slice me to pieces.

**LEAPING LEMURS**

My day didn’t start this way. In fact, it was a pretty ordinary day—for me. I was in Madagascar to study lemurs. This island off the African coast is one of few places where they live in the wild.

To study lemurs, I have to go to them. So I camped out in a rain forest. On the morning of my rock adventure, I tied my bootlaces and set off in search of lemurs. I wondered how long it would take. Lemurs can be hard to find and not easy to track once you’ve spotted them. They move quickly, leaping among trees and leaving me huffing and puffing behind them.

This time, though, I barely had to leave my campsite. I suddenly noticed orange eyes staring at me from above. The lemurs had found me.

I whipped out my waterproof notebook and started taking notes. Then one of the lemurs leaped and the others followed. I raced to keep up.

As a National Geographic explorer, I’m used to hiking through jungles, scrambling over rocks and sloshing through swamps. Yet these lemurs led me to a kind of place I’d never seen before.

Instead of staying among the trees, they vanished into a forest of tall rocks. I suddenly felt like I was in a maze.

**RARE ROCK**

These unusual rock formations are called karsts and exist in only a few places. Scientists think these karsts were formed 200 million years ago. They started as limestone on the seabed and then Earth’s tectonic plates shifted. As they moved, these giant pieces of Earth’s crust and mantie slowly pushed the limestone above the water. The rock became land.

Then pounding rain and water seeping through the ground began to wear away at the rock. It carved caves in the limestone. In time, some cave roofs collapsed and created a maze of narrow rock canyons. Even today, water continues to dissolve parts of these rocks. It sharpens their edges and creates tall towers.

In Madagascar they call this rock formation tsingy. In English the word means “walking on tiptoe” or “where one cannot walk barefoot.” It’s easy to see why. The sharp rocks make this place a nightmare to explore.

The rocks may be hard on explorers, but they form a safe place for many species. Across Madagascar, people have cut down forests to build homes, farms and cities.
They can’t do that here. The tsingy keeps most humans out. The rock walls can even keep fire out. That has created a habitat like no other.

**ON THE GROUND**

As I raced into the tsingy, I wasn’t thinking about habitats, though. I just wanted to catch up with the lemur. I looked all around, hoping to see a flash of white fur. Nothing. Uh-oh, I’d lost them.

It wasn’t all bad, I told myself. As I looked for the lemur, I could explore. Before the day was over, I would crawl through deep, damp canyons. I’d climb past cool cliff caves and scale hot, dry rock peaks.

I would discover that this place isn’t just one habitat. It’s many smaller ones, or microhabitats. Each is a different layer of life.

**LAYERS OF LIFE**

Different kinds of animals and plants live in each layer. Lemurs can travel between layers and I wondered where I’d find them.

I started looking for them in the ground layer, called the bottoms. Tall rock walls create narrow canyons. Water and soil pile up on the ground and orchids and other plants take root. Trees grow tall between rock walls, reaching for the sun’s light.

I felt like the rock walls were closing in on me. In some places, the openings between rocks were really narrow. I snagged my clothes and gear as I squeezed through them.

**WILDLIFE**

I scanned the trees for signs of lemurs. Instead, I spotted a dwarf leaf chameleon clinging to a branch. This one was purple and looked like a little dragon. Rows of thorny spines covered its back and sides.

This reptile has a very cool way to defend itself. When I put it in my hand, it started vibrating. It tickled me, but it would startle a predator.

Higher up in the tree, a sparkle of colour caught my eye. It was a jewelled chameleon that had climbed high to get warm in the sun. Like all chameleons, it changes colours. Sometimes spots of blue, yellow and red speckle its skin.

**TROUBLE**

As I moved deeper into the tsingy, I heard a hiss and felt a tug on my leg. I looked down, expecting to see a snake.

I know tree boas live in this rock forest. Despite their name, they often slither on the ground. It wasn’t a snake, though. A bug the size of my fist was crawling up my leg. It was a Madagascan hissing cockroach.

I gently plucked the noisy bug off my leg and as I bent over to put it on the ground, I spotted some white fur.

I’d found the lemur! Then my heart sank. It was a lemur’s tail—and just its tail.

Oh, no, I thought. The fossa.

A fossa is a killing machine. It’s a predator with strong jaws and sharp claws. The worst thing is its diet—it eats mostly lemurs.

I wondered if the fossa was still waiting near by. I sniffed the air. Fossas stink but I didn’t smell anything bad. That meant the fossa was on the move. So was I. I needed to find the lemur before it did.

**CLIFF CAVES**

I began climbing. Some rocks were too sharp to grab. Others were so brittle that they crumbled under my weight.

The higher I went, the hotter it got. Swarms of pesky orange flies bit me. Finally, I reached the middle layer where caves provide shade and homes to many species.

As I rested in one cave, I looked up. Giant fruit bats hung from the ceiling. Each was as long as my arm. Vasa parrots were also roosting there. These birds look like a cross between a crow, a pigeon and a dinosaur. Their cackle sounds like a laugh. Then, in the back of the
The Decken's sifaka, a kind of lemur, is 92 to 107 centimetres long, of which 42 to 48 centimetres is its tail.

cave, I found nests of bees. Time to go. I'm allergic to bees.

TO THE TOP

By now, I was getting worried. Maybe I wouldn't catch up with the lemurs at all. Since entering the tsingy, I'd only found the bit of tail. I didn't want to imagine what happened to the rest of that lemur.

At last I reached the top layer. Sharp rock peaks surrounded me. There was little soil and no shelter from the fierce sun. The temperature was above 32 degrees Celsius.

The only plants that survive here need little water and can stand the heat. Some are prickly and have thick skins like cacti. Other plants have long roots that snake down the rock looking for water.

FOUND!

Few animals live in or visit the rock peaks. Those that do, travel through all the layers. I saw lizards scurrying along cracks, chasing insects. A dragonfly perched upside down on a rock, trying to stay cool. No lemurs, though.

Then I saw a blur of white. It was a lemur leaping from rock to rock. I saw another and another. I'd finally caught up!

I got so excited. I began jumping from rock to rock, too. That was not a good idea. That's how I ended up clinging to a rock, worried about falling. I took a deep breath. I wiped the sweat off my hands. Step by step, I made my way back to a safer spot.

Luckily, the lemurs decided to stop jumping around. Now I had a chance to see what they did up there. As they perched on sharp rocks, they picked through each other's fur. Some chewed on mangoes. This fruit doesn't grow up there, so they must have carried it with them.

I also noticed the lemurs had thick pads on their hands and feet. The pads protect them from sharp rocks. That's how they could leap from rock to rock more easily than I could.

AN EXPLORER'S DREAM

I watched the lemurs until the sun set. Then I headed back to camp. As I made my way back through the layers, past cliff caves and through canyons, I felt lucky.

The lemurs led me to one of the most amazing places I'd ever seen. I'd explored just a small part and yet I'd seen three different habitats. Each had its own plants and animals. It made me wonder what I'd discover on my next visit.

Other scientists have recently found new species of frogs, bats, and lemurs living there. As I fell asleep, I realized that the tsingy is not just a nightmare of sharp rocks. It's also an explorer's dream.
GET READY TO BE AMAZED BY MY AWESOME ABILITIES!

NAME Bull
FAVOURITE ACTIVITY Staring contests with his buddy Mac
FAVOURITE TOY Mirror
PET PEEVE Runny noses

NAME Houdini
FAVOURITE ACTIVITY Escaping from his cage to tease Harriet the cat
FAVOURITE TOY Shiny metal keys
PET PEEVE The phrase “free as a bird”

FIRST ONE TO BLINK HAS TO TAKE THE OWNER FOR A WALK.

All they need to be happy and healthy.

Nutriphase has been scientifically balanced and packed with essential vitamins and minerals. It’s formulated to ensure your pet’s strong bones, tough muscles and shiny coat.

So you can trust us to help keep your pet happy and healthy at every stage of its life. When you add Nutriphase to your shopping list, you’ll be giving your pet all the goodness it deserves.

Nutriphase™ PREMIUM PET FOOD

PREMIUM PET FOOD
All they need to be happy and healthy.

Nutriphase has been scientifically balanced and packed with essential vitamins and minerals. It’s formulated to ensure your pet’s strong bones, tough muscles and shiny coat.

So you can trust us to help keep your pet happy and healthy at every stage of its life. When you add Nutriphase to your shopping list, you’ll be giving your pet all the goodness it deserves.

CUSTOMER CARE TOLL FREE: 0800 11 22 88

EXCLUSIVE TO Pick n Pay
Can they be true? Or are they just silly ghost stories?

BY JOHN MICKLOS, JR. AND JANI COETZEE

Some places are known for creepy sightings and scary sounds. Could it be caused by ghosts? Read on and decide for yourself if these are true ghost sightings or made-up myths!

WILD WEST WON’T REST

WHAT: La Fonda on the Plaza
WHERE: New Mexico, America

THE STORY: In the 19th century many Americans journeyed west in search of new land and riches. The Santa Fe Trail—which stretches from Franklin, Missouri, to Santa Fe—became a popular route for pioneers. Life in this rowdy Wild West town could be unsafe and the hotel was the site of some deadly fights. “Legend has it that it’s now a spot for phantoms,” says Carol Imrie-Mul of Historic Walks of Santa Fe. A ghost in a black coat reportedly wanders the hotel hallways. And some say they’ve seen the shadow of a man swinging back and forth in a part of the plaza where outlaws were once hanged.
**Phantom Bus**

**WHAT** Number 7 double decker bus

**WHERE** Cambridge Gardens, London

**THE STORY** Early one morning in 1934, a motorist suddenly swerved for no apparent reason and crashed into a wall. Witnesses claimed they saw a “ghost bus” racing towards the car. The bus appears and then vanishes suddenly after passing a spot on St Mark’s road. A local transport official also claimed to have seen the ghost bus. He saw number seven pull up at the bus depot early one morning. Then it suddenly vanished again.

---

**Haunted Hospital**

**WHAT** Somerset Hospital

**WHERE** Cape Town, South Africa

**THE STORY** The Somerset Hospital in Green Point is home to a number of ghosts—a young girl who haunts the front steps and a man who hums tunes by the composer Franz Schubert at night. Best-known is a nun who roams the corridors of the hospital at night. Some say it is the ghost of Sister Henrietta Stockdale, a nurse who was later known as the “Mother of South African Nursing.”

---

**Terrifying Train**

**WHAT** Silverpilen Train

**WHERE** Stockholm, Sweden

**THE STORY** There is an abandoned train station in the woods in Kymlinge that is the only stop for a ghost train called the Silverpilen (The Silver Arrow). The ghost train has been spotted in abandoned tunnels by subway workers. Others say anyone can see it speeding through the station after midnight. Some even claim Silverpilen sometimes stops to pick up passengers, who then disappear forever or later “get off” weeks, months or even years after they took the train.

---

**Ghosts That Float**

**WHAT** The Queen Mary

**WHERE** Long Beach, California, America

**THE STORY** During World War II, the R.M.S. Queen Mary ferried American soldiers across the North Atlantic Ocean to the battlefields of Europe. Tragedy struck when the ship accidentally hit another boat off the Irish coast, killing hundreds of people. Today the ship is a hotel. Some guests claim they can hear the crunching of metal and ghostly shouts of the crash victims.
In the new 3-D animation movie Frankenweenie a boy called Victor loses his dog, Sparky, who is run over by a car. Victor’s science teacher tells the class what happens when lightning strikes people. This gives the boy an idea and he brings his friend back to life. Kind of. He tries to hide the monster mutt from the rest of the town, but his best friend Igor discovers his secret and talks him into reviving a dead goldfish. It comes to life, but is, um, invisible. Then Sparky falls in love with a freaky poodle. That’s only the start of Victor’s problems...

Director Tim Burton enjoys making movies that are like slightly creepy, rather spooky puppet shows. He also made The Nightmare Before Christmas and Corpse Bride. He uses one of the oldest ways to do animation. It’s called stop-motion. NG KIDS went behind the scenes to peek at the puppets.

**TABLE ACTION**
Inside each puppet is a kind of metal framework that works like a skeleton. It’s also called an armature. Thanks to these frames, a puppet can make tiny, tiny movements. Sparky’s armature was tricky because he has so many moves and expressions. It had about 300 parts! He couldn’t be smaller than 10 centimetres, or he wouldn’t be able to do his best “acting.” Once they had his size fixed, the puppet makers adapted the other characters to fit in with him. The sets were built on tabletops. Most of the things in them were made and painted by hand.

**HOW MANY SPARKYS?**
More than 200 puppets and sets were created for the film. There were 17 Victors and 12 Sparkys. This meant different animators could work on separate scenes. And if one Sparky broke, there was always another one...

**THE FIRST PUPPET DESIGNED WAS SPARKY AND THE SCALE THEY SET FOR HIM WAS USED FOR THE WHOLE REST OF THE FILM.**
STOP! MOTION! STOP!
How does stop-motion animation work? You film one frame and stop the camera. An animator moves the puppet a little. You film another frame. Just one. Then you move the puppet again. Show all the frames in a row and you see smooth movement. Now it’s a movie! This takes a very long time, though. There are 24 frames per second in *Frankenweenie*, so each animator stopped the camera and moved the puppets 24 times to get one second of film. In fact, animators produce five seconds of animation per week!

HAIR OF A... HUMAN
Tim Burton did drawings of Sparky long ago. Artists turned them into 3-D sculptures, which were cast in silicone and latex. The costumes were sewn with miniature stitches to keep them in scale. Wigs were made of human hair and applied strand by strand so their hairline would look more natural.

IN LOVING MEMORY
Tim says he loved horror movies when he was a kid. But that’s not the only reason he wanted to make *Frankenweenie*. "It was also the relationship I had as a child with a dog -- around the time of five to nine. It’s a special relationship that you have in your life and very emotional. Dogs obviously don’t live as long as people, so you experience the end of that relationship. It wasn’t like having a goldfish.”

FRANKEN-WHO?
*Frankenweenie* was inspired by a book written long ago by Mary Shelley about a mad scientist who tries to make a real human being and ends up creating a monster. Many people think the monster’s name was Frankenstein, but that was the professor’s name. The poor monster was just... the monster!

MY ARMATURE HURTS
There was a puppet hospital on the film set and it was always full of model makers repairing limbs, fixing hair and skin or mending costumes.

ELSA VAN HELSING CONFRONTS A WERE-RAT.
READY, STEADY, SNAP!

PRIZES WORTH R110 000 ARE UP FOR GRABS IN THE 7TH NG KIDS YOUNG PHOTOGRAPHERS COMPETITION!

WHAT TO DO:
- Decide which category you want to enter, grab your camera or cell phone and take a picture of anything that catches your eye.
- You may enter one picture in each of the four categories.
- It's not about using a top-of-the-range camera, it's about capturing a unique and interesting photo that shows us how you view the world.
- Entries opened on 29 August and close on 20 November 2012.

WAYS TO ENTER:
1. See page 39 for the entry form and terms and conditions.
2. Electronic: E-mail or MMS to ypcflingkids.co.za. Remember to write "NG KIDS YPC" in the subject line and add your photo title, category and age group.
3. Post: NG KIDS Young Photographers Competition, PO Box 740, Cape Town 8000.
4. Delivery: NG KIDS Office, Media24, Lifestyle Division, 4th Floor, ABSA Building, 4 Adderley Street, Cape Town.
5. Online: Ask a parent to visit the National Geographic Kids SA fan page on Facebook and click on the Young Photographers Competition tab. https://www.facebook.com/NationalGeographicKidsSA.

CATEGORIES:
I Love South Africa
That's Funny
Animals
People

A PANEL OF EXPERTS WILL JUDGE THE ENTRIES BASED ON CREATIVITY (50 PERCENT) AND PHOTOGRAPH QUALITY (50 PERCENT). THE PANEL’S DECISION IS FINAL.

GRAND PRIZE:
The overall winner can capture amazing pictures with a fantastic Nikon D3100 Twin Lens Kit (18 – 55mm VR + 55 – 200mm VR) worth R7 000 and free camera training, a special SanDisk hamper valued at R1 499, as well as a family holiday for four (two adults and two children up to the age of 15) at the Bush Lodge, courtesy of Sabi Sabi. Sabi Sabi is one of the premier private game reserves in the Sabi Sand Reserve, South Africa. Bush Lodge has 25 luxurious suites and has special appeal for visitors and families seeking the excitement of the Big Five. Visit www.sabisabi.com for more information. Airlink is sponsoring return flights for the winner (two adults and two children) from either Cape Town, Johannesburg or Durban to Kruger Mpumalanga International Airport. The total value of the holiday is R37 100. The winner will also be entered into the International Photography Contest 2012 For Kids and could win a trip to Washington DC in America to visit the National Geographic Society!

BE QUICK! THE FIRST FIVE ENTRANTS WILL GET A SANDISK 6 GB EXTREME SDHC CARDS.

The regional feeder Airlink airline flies to more local destinations than any other airline and connects you to the smaller towns and regional centres in Southern Africa. Visit www.flyairlink.com. Take better pictures and videos with Sandisk! Visit www.tudormtech.co.za.
TERMS AND CONDITIONS

*FOR ALL COMPETITIONS AND GIVEAWAYS IN NG KIDS*

All entries must include your name, age, postal address, home telephone number, cell number, e-mail and any mandatory information specific to a competition, including answers to qualifying questions unless otherwise specified. - Prizes and giveaways cannot be transferred or exchanged for cash. - If you cannot meet any one of the entry requirements, the judges reserve the right to award the prize to a runner-up. - NG KIDS has the right to substitute the gift or prize with something of the same value. - The copyright of all entries, letters, photographs, artwork, SMSs and questions belongs exclusively to NG KIDS and NG KIDS reserves the right to edit and reproduce them in any media. - Winners may decline to have their name used in advertising or listed publicly. - Competitions and giveaways are open to anyone 14 years or younger, except employees of Mediacorp, sponsors and their agents or any company associated with the competition and their immediate families. - Where the competition prize is a holiday stipulating that it is for a certain number of adults and children, "children" will be taken to be under the age of 12, unless otherwise stipulated. - Unless specified only submissions or entries from South Africa are allowed. - Winners reside outside of South Africa they may be liable for transport, courier or postage costs. - The winners will be notified telephonically and their names will appear in NG KIDS magazine. - The judges’ decision is final and no correspondence will be entered into. - Allow two months for delivery of prizes from winners’ announcement in NG KIDS. - The prizes will be awarded to correct entries drawn randomly by computer after the closing date, except when there is judging involved or it is stated otherwise. - If the winner cannot be contacted within two weeks after the closing date, an alternative winner will be drawn. - All competition entry SMSs are charged at R5.00 each. Free minutes and SMS bundles do not apply. You can enter as many times as you like, unless stated otherwise. - By entering competitions online, via e-mail or SMS, you agree to receive future correspondence from NG KIDS magazine and the prize sponsors. You can opt out at any stage by sending an e-mail containing your name, surname, cell number and e-mail address with the subject line “opt out” to optout@ngkids.co.za. - The entrant accepts that entry to the competition does not constitute a contract or any form of legal commitment between the entrant and NG KIDS, Mediacorp or the National Geographic Society. - NG KIDS shall not assume liability for any ambiguity, error, oversight or omission whether negligent or otherwise which may be committed by any employee of the participating magazine, their agents or associates in respect of competitions or giveaways published in the magazine or online. - Entry signifies acceptance of the rules. - Competitions in the NG KIDS October 2012 issue close on 23 October 2012 unless otherwise specified.

*GENERAL TERMS AND CONDITIONS FOR SUBSCRIPTIONS*

Children must ask an adult for permission; SMSes charged at R5. - Free minutes and SMS bundles do not apply. - Offer valid until 22 October 2012. - New and renewed subscribers will automatically be entered into a draw to win a 16 GB Flik Flash goodie bags for eight girls and eight boys respectively valued at R1 000 each. - The goodie bag consists of a back pack and pencil case plus a Summer Lines Treasure Flik Flash Watch for girls and a Discover Around Flik Flash Watch for boys. - The Flik Flash competition offer not valid in conjunction with the Vitality offer - Refer to the full terms and conditions for all competitions and giveaways in NG KIDS. - Discovery Vitality offer valid only for active Vitality members. - All subscribers agree to receive future correspondence from NG KIDS. You can opt out at any stage by sending an e-mail containing your name, surname, cell number and e-mail address with the subject line “opt out subscriber” to optout@ngkids.co.za. - Offer is open to SA addresses only – call 031-405-9905 for international rates. - NG KIDS CLUB benefits are strictly for South African residents. - Staff of Mediacorp/Ltd and their immediate family, sponsors and their advertising agencies are not entered into monthly subscriber competitions.

YOUNG PHOTOGRAPHERS COMPETITION TERMS AND CONDITIONS:

The competition opened on 29 August and closes on 20 November 2012. It is open to all readers who are between six (6) and fourteen (14) years of age on 1 November 2012. All photographs must be the entrant’s own work. - Only one photograph for each category per entrant will be accepted. - All entries remain the property of NG KIDS and we regret that we cannot return any photographs or CDs. - Please supply a residential, rather than a PO Box address. - NG KIDS and the National Geographic Society retain the right to use all entry images in post-competition publicity throughout the world. We reserve the right to exhibit and reproduce photographs with a credit to the photographer, winners may decline to have their name used in advertising or listed publicly. In this instance NG KIDS/NGS reserves the right to publish their photograph without credit and by entering into this competition they accept this. - The National Geographic Society and Mediacorp accept no responsibility for loss and damage. - If feasible, finalists will require a model release for any recognisable people in the photograph. - A location release for any private property in the photograph and a copyright license from any authors of works that appear in the photograph. - The finalists and winners will be notified telephonically by mid-January 2013 and their names will appear in the March 2013 issue of NG KIDS magazine. - MMS entries are charged at standard rates. Free minutes do not apply. - A panel of experts will judge the entries based on creativity (50 percent) and photographic quality (50 percent). The decision of the judges is final and no correspondence will be entered into. - Photographs must have been taken within three years before date of entry. - Digital entries must be 5 MB or smaller and must be in JPEG format. A low resolution version can be sent as long as high resolution is available for printing. - Originals must be available in print-ready format. - Minor burning or colour correction, cropping and the use of a fisheye lens is acceptable. - Digital manipulation other than the above is not acceptable and will render the photograph ineligible for the competition. - The first five entrants will receive a SanDisk 8GB Extreme Pro 95MB/S SDHC card, a Sandisk Clip+ and an MP play, a SanDisk micro SD 64GB SDHC and adapter. - The overall winner will receive a Nikon D3200 twin Lens kit (AF-S Nikkor 18-55 mm VR and AF-S Nikkor 200-900 mm VR), including free camera training, a family holiday for four to Sabi Sabi and a hamper consisting of a SanDisk 16GB Extreme Pro 99MB/S SDHC card, a SanDisk ImageMate all-in-one USB 3.0 card reader and a SanDisk Cruzer Ultra Backup 32GB USB flash drive. - The Sabi Sabi prize includes return road transfers from Kruger Mpmulangla International Airport (KMA) to Sabi Sabi, two nights’ accommodation on a complimentary basis for two adults and two children sharing, all meals, morning and evening safaris, sundowners and local Law and must be taken within six months of the winner being notified, excluding certain periods and subject to availability. - Extras such as beverages (those not included in the prize), telephone, laundry, curios, spa treatments, gratuities and other additional expenses are excluded. Airport taxes will be for the winner’s account. Persons under the age of 16 are not allowed on walking safaris. - Airlink will sponsor return flights on Airlink from either Cape Town, Johannesburg or Durban to KMA.

*ROLLER KIDZ COMPETITION*

The competition opens on 26 September and closes on 23 October 2012. - Refer to the full terms and conditions for all competitions and giveaways in NG KIDS. - The prizes include four Gunlinger Longboards with wheels, two pairs of Chicago Skates C10 100’s for boys (biggest size available, SA size 4), two pairs of Chicago Skates C10 100’s for girls (biggest size available, SA size 4) and 20 pairs of size adjustable Roller Kidz Heel wheels. - You can enter as many times as you like, however separate entries are required for each item.

WINNERS FROM NG KIDS JULY ISSUE

LAWRILL COMPETITION: Irene Roberts, Rustenburg. HUGO DVD: Xavier Liebenberg ( Pretoria), Marke Wepelle (Pretoria), Rohan Pardeil (Tulbagh), Jessica Walsh ( Cape Town), Enri Botha (Pretoria);"GAME"; Louis Neil (Plettenbergbay), Nikhil Pillay (Gardenburg), SHAKE IT UP CD: Tristan Riddin (Port Alfred), Jordan Gw (Cape Town), Irenne Janse van Rensburg (Morgansville), Luanndre Louters ( Cape Town), Marcel Mostert (Bloemfontein) Te Louw (Kwa-Zulu), Koot Gousshulin (Barney West), Kyle Verley (Cape Town), Zanat Laher (Lenasia), Marnus Moolman (Bloemfontein), Ashleigh Mulder (Randpark Ridge), Daniel Oniseki (Klerksdorp), Calvin Petzer (Kempton Park), Thallok Janse van Vuuren (Hermanus), Corre du Preez (Germiston)

NG KIDS YOUNG PHOTOGRAPHERS COMPETITION ENTRY FORM

<table>
<thead>
<tr>
<th>FULL NAME:</th>
<th>AGE:</th>
<th>BIRTH DATE:</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>PHYSICAL ADDRESS:</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>SCHOOL:</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>PHOTOGRAPH TITLE/S:</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>CATEGORIES: (you can enter up to four pics)</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>ANIMALS</th>
<th>I LOVE SOUTH AFRICA</th>
<th>PEOPLE</th>
<th>THAT’S FUNNY</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>TELEPHONE NUMBERS:</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>NAME OF GUARDIAN:</th>
</tr>
</thead>
</table>

This is my own original work and I give NG KIDS permission to publish and display my photographs. I agree that the photographs become the property of NG KIDS and that all rights are transferred to NG KIDS.

NATIONAL GEOGRAPHIC KIDS 39
Join this month for only R272.76 and save 20 percent on a year’s subscription. You will also be entered into a competition to win one of eight Flik Flak hampers for girls and eight for boys, valued at R1 000 each!

Each hamper consists of a backpack and pencil case, plus a Summer Lines Treasure Flik Flak Watch for girls or a Discover Around Flik Flak Watch for boys.

EXCLUSIVE CLUB BENEFITS:
- New subscribers get 20 percent off a year’s subscription.
- Existing subscribers get 25 percent off a year’s subscription.
- Be the first to receive the magazine, delivered to your door.
- Receive invitations to special subscriber events.
- You’ll be entered automatically into monthly Lucky Subscriber draws.
- Participate in quarterly reader polls [remember to include your e-mail address].

Flik Flak watches have a model for every age and personality and will show off your unique style! Soft and tender is always in style and Flik Flak sets the tone with colourful prints in dreamlike settings. It’s a delightful line that will appeal to ballerinas and BMX riders alike. Swiss-made, shock-resistant, waterproof and sporting scratch-resistant mineral glass - your Flik Flak watch will keep pace with you as you grow.

Visit www.flikflak.com for more information.
National Geographic KIDS is an interactive, multi-topic magazine covering animals, entertainment, science, technology and cultures from around the world. Kids will enjoy the fascinating articles and fun-filled activities on every page!
Fun Stuff

games, laughs, and lots to do!

Trick Or Treat

A lot more is going on at this house besides trick-or-treating. Figure out the three-word phrase that describes each of the numbered scenes. The first and last words always begin with t and the middle word always begins with a. So the answer to number one is "Tigers overload trampoline." Ready to trick-or-treat?

Answers on page 50
COLOUR YOUR WORLD
These photographs show close-up views of rainbow-coloured objects. Unscramble the letters to identify what's in each picture. Bonus: use the highlighted letters to solve the puzzle below.

*ANSWERS ON PAGE 50*

TWSASREE
NBRWA01
ILPNR5KSE
OUODCler
ILSNECP
LRBUEALM
HOUSERTBSHO
QRIUCEL01
ELOSTW
AESHFRTE

HINT: Leprechaun or not, anyone would be happy to find this under a rainbow.

*ANSWER: blank*
This year I wanted to have an adjective Halloween costume. I threw __________ on my __________, put on a(n) __________ wig made of __________ and slapped on some __________. Then I decided to show my friends. I growled as I __________ toward them. But my __________ backfired. “Monster!” __________ shouted when (s)he saw me. “__________ him!” I __________ as fast as I could, hopped over a(n) __________ and landed in my neighbour’s garden — right in the middle of their Halloween party. Kids dressed as __________ and __________ and pointed at me. I panicked and __________ into the nearest hiding place: the __________ animal house. Next year I’ll be sure to __________ __________ a less __________ adjective costume.
Not all monsters are scary! Some are quite friendly! NG KIDS readers sent us pictures of their friendly monsters.

Maudegal
Jané Esterhuysen, 11,
Protea Heights

“My Kosmonstertjie”
Adrian Johnson, 12,
Jongensfontein

My Friendly Monster Egg
Juliette Pascoe, 5,
Cindapark

Meep my Family Monster
Zain Christians, 10,
Simonstown
The Queen of Friendly Monsters
Catherine Pascoe, 8, Cindapark

Fredie
Helen Meyers, 9,
Plumstead

DRAW yourself on an ISLAND
Send your original drawings to
The Editor at NG KIDS,
PO Box 740, Cape Town 8000.

Include your name, address, phone number, date of birth, a little for your drawing, a statement that it is your own work and the name of your parent or guardian. Your parent or guardian must sign a release for publication of your Illustration. Submissions become the property of the National Geographic Society and all rights are transferred to the National Geographic Society. Submissions cannot be acknowledged or returned. Selection will be at the discretion of NG KIDS.

"Toebroodjesmonster Verkoop"
Christelie Cloosen, 12,
Jongensfontein

"Die Liefde Monster"
Lushe Potzer, 9,
Uitzicht

Friendly, Sporty Monster
Giacomo D’Arrigo, 9, Springs
HOTEL TRANSYLVANIA
Starts in cinemas on 28 September 2012
Welcome to Hotel Transylvania! Dracula is the owner of this five-star hotel where monsters and their families can relax and be monsters – free of annoying humans bothering them.

At this resort you will see Uncle Frankenstein kicking back next to the pool, a mummy sipping on a cup of coffee and a werewolf family enjoying a steak at the restaurant. Dracula invites all his close friends over for a special weekend – his teenage daughter Mavis is turning 118!

In real life there is no such thing as a vampire, but researchers believe that the character was inspired by Vlad the Impaler, a cruel Romanian royal who was also known as Vlad Dracula. The character became so famous that scientists named a glycoprotein in the saliva of bats “Dracula”.

When an ordinary guy called Jonathan accidentally stumbles upon the monster Hotel, while backpacking through Europe, Dracula must disguise him so the other monsters won’t find out about the security breach. But Jonathan becomes a problem when he falls in love with Dracula’s daughter, Mavis. What will Dracula do and will it ruin his relationship with his daughter for all eternity?

OLIVER STRANGE AND THE JOURNEY TO THE SWAMP
Dianne Hofmeyr
Oliver is a boy from Tooting, England, whose father (a frog specialist) has gone missing in Botswana. Oliver is expecting the worst! Then he is fooled by the evil Alecto who pretends to be his aunt and lured away from home.

Oliver makes friends with Zinzi, a girl whose delight is caring for wild animals and has a pet bushbaby and a python. But then the two of them are kidnapped and taken off into the Okavango Swamps by Alecto and her sidekick Molotse. They have already captured Oliver’s father in their search for frogs which are destined to be frozen, exported and eaten as sushi. Next on their list are more rare frogs.

It is up to Oliver and Zinzi to rescue his father and stop Alecto and Molotse’s terrible scheme.

MONSTER SCRAMBLE
Unscramble the words to find the names of famous monsters!

KISNRAFETENN
ALUDACR
HETMYUMM
DOGLIAZL
PAWMS GHINT

NOW THAT’S WHAT I CALL MUSIC 61
Get moving to all your favourite dance tracks!
Boogie to all the biggest radio hits with highlights including Nicki Minaj’s Starships and Carly Rae Jepsen’s monster hit Call Me Maybe!
Did you know that Justin Bieber and Carly Rae Jepsen are both Canadian.

NOW THAT’S WHAT I CALL MUSIC 61
You can win one of the NOW CDs, SMS “NOW WIN” followed by your name, age and address to 93795.
Costume Confusion

The Animal Jam characters are dressed up in costume—but a phantom is also wearing a special outfit. Use the clues below to find the phantom. The phantom...

- is wearing red.
- is wearing white.
- has a hat.
- is not wearing a patch.
- has more than three spots but fewer than seven.

Answer on page 50.
KNOCK, KNOCK.
Who's there?
Myth.
Myth who?
Myth you too!

What do you get if you cross a witch's cat with Father Christmas? [Answer: A]

What is a ghost's favourite day of the week? [Answer: Friday]

Tongue Twister
Creepy crawler critters crawl through creepy crawly craters.

Q: What's big, heavy, furry, dangerous and has 16 wheels? [Answer: A]
MAKE ROOM FOR NATURE
Teach your kids about the natural world with NG KIDS Magazine
What's black and white and loves the ice? Guess the Smart Game!

SMS the name of the game and your email address to 45676. You could win 10 mind challenging games!*

A selection from our multilevel, logical, mind challenging Smart Games range:

- Penguins on Ice
- Hide & Seek Safari
- Colour Code
- Aqua Belle

Smart Games are single player games which develop logical thinking skills, strategic planning and visual and spatial perception.

Looks easy... until you try it yourself. It's... IQ building fun!

Terminate the TV, raise your own child

www.smartgames.co.za

*Terms and conditions apply. Please visit our website for a full list of the terms and conditions. Entries must reach us by 30 November 2012. SMS charged at standard network rates.