Made in RSA!
supernova
The mag for curious kids
Vol 12.2
The Secret World of the
GIANT SQUID
PUZZLES | SCIENCE | NATURE | ACTIVITIES | SPORTS | COMICS

Hobby-X

RETROspective

The *Supernova* team were out in full force at the fun-filled Hobby-X!

Hosted at the Kyalami racetrack from 2-5 May 2024, the event featured a number of interesting stalls and workshops, providing a weekend filled with fun for the entire family.

Hobby-X had something for everyone! Metalwork, art classes, simulators, racing, almost unlimited craft options... this event was a great success for everyone involved.

Here are our highlights of the show...

The stats:

4 Days	**11 116** Visitors	**94** Exhibitors
287 Workshop Attendees	**39** Unique Workshops	

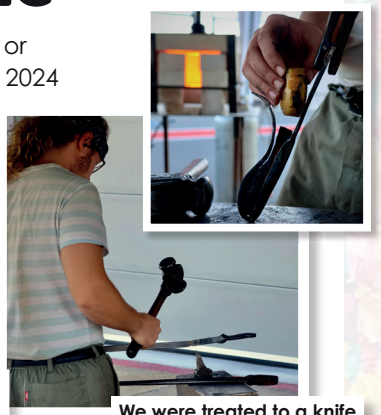
This year's theme:

RETRO REWIND

The super cool Crazy Crafts Retro Rewind beetle

Something for everyone

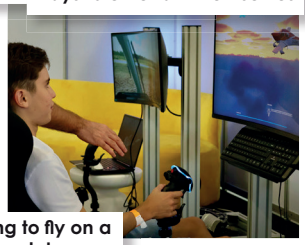
Young or old, amateur or experienced, Hobby-X 2024 had something for you. There were workshops and demos, great shopping deals for crafters, live music and games and even good food.



We were treated to a knife forging demonstration

Everyone was entertained!

Happy children found lots of ways to entertain themselves



Learning to fly on a flight simulator

Carnival Vibes

PNA set the mood with their awesome retro stand.

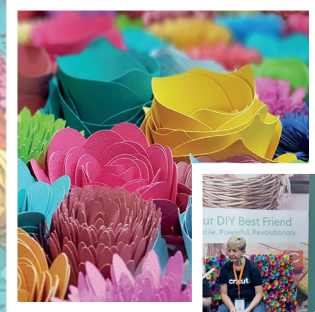
This year, PNA hosted a craft competition around their artsy workshops, which saw some fierce competition go down!

Congratulations to René, who won the PNA 2024 Craft-Off!

New Guiness World Record

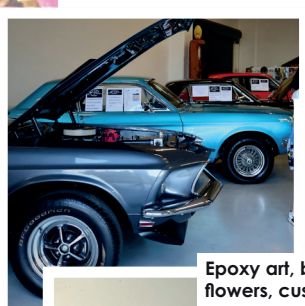
One of the highlights of the event was definitely the new Guinness World Record that was set by our friends at Cricut for the biggest rolled paper flower wall. Head of consumer marketing for Cricut America, Jowilna Nolte, told us a bit more about this world record attempt. The Cricut team used their Maker-3 cutters, which can cut over 300 different materials from wood to leather, or in this case, cardstock. The cardstock was cut into beautiful flowers and stuck together on a wall above the Cricut stand. The record was set at an astonishing 6000 flowers on Sunday evening as the flower wall was completed. Well done to both Cricut and Hobby-X!

Jiwilna Nolte (right), head of consumer marketing for Cricut America

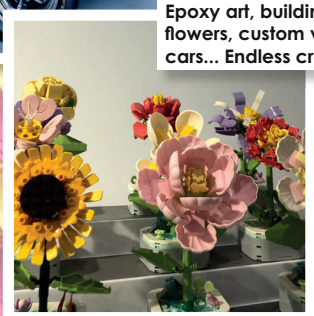


Art on display

Hobby-X gave an opportunity for hobbyists to show off their work, and the offerings were nothing short of spectacular!



Epoxy art, building block flowers, custom vintage cars... Endless creativity!



Reading is our hobby!

The *Supernova* magazine team was out in full force showcasing all our cool magazines and books.

We had a blast meeting all our fans and spreading a love for reading!

Our reading corner was a great hit!

We got to meet our Super-fans, like Alison (8), James (11), Thomas (4), and Tristan (13)

We had such a good time, and we're sad it's over. We can't wait for next year! Pencil it in now, we'll see you next year from 01-04 May for Hobby-X 2025!

messe frankfurt

Hi SuperKids

Candice

Welcome to our latest jam-packed issue! We've covered such a big variety of interesting topics in this issue, from giant squids and Feng Shui, to the history of our alphabet and a quick look at where pyjamas came from. What fun it was to put it together for you!

But, a big topic that we're diving into in this issue is the world of invasive species – creatures that have traveled far from their native homes and are causing trouble in new places. They teach us valuable lessons about the delicate balance of nature and the importance of being mindful stewards of our planet!

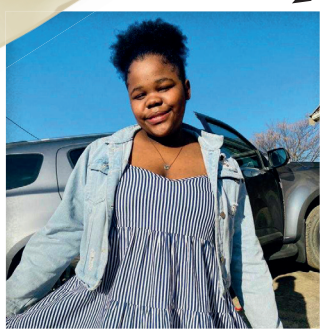
Learning about these sneaky pests really opened my eyes to how everything in our world is connected – especially in our natural environment. One little change, which you might think is totally insignificant, can actually be the spark that changes everything. While this is a bit daunting to think about from the perspective of the havoc that these invasive species cause, we can also choose to look at it positively! One of us, a reader of Supernova, could just be the tiny spark needed to change the world and bring about an unexpected positive outcome.

We hope you enjoy this new issue filled with fun articles and cool facts that will tickle your brain and fill your mind. Happy reading, and stay curious kids!

Sinekhaya's top picks in this issue!

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

Learning about the invasive species in South Africa was so interesting! I had no idea how much they could impact our environment.



Sinekhaya
Intern

I loved uncovering more about the mystery of the Giant Squid! Did you know that they are the largest invertebrates on the Earth & have the largest eyes in the animal kingdom?

Reading about exploding stars in the **Pinboard** (page 4) was so exciting! I've never seen a star explode, so I can't wait until September to finally see it happen.

Check out some super fun facts about the **Secrets of our Alphabet** (page 30).

Learning about a local language was also very helpful! I don't know Sesotho, but I'm glad I can add a few words to my vocabulary.

The **Music** section (page 10) was my all time favourite. My friends and I are huge Swifties, and I firmly believe you can never have too many Taylor Swift facts!

Looking for more? @supernovamag supernovamagazine

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The Features

24 Invasive Species

Did you know that South Africa faces threats from all sorts of small and large invasive species that take over our land? These invasive species impact our biodiversity and delicate ecosystems, and have huge effects on native plants and animals. Together, let's take a closer look at some of the things we can each do to make sure they don't spread, and protect South Africa's unique flora and fauna for generations to come.

29 Make a pressed flower bookmark

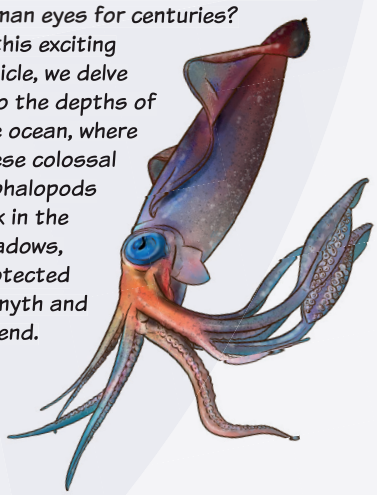
Discover the secrets of preserving the beauty of nature in delicate petals and leaves while creating stunning bookmarks that will add a touch of whimsy to your reading adventures. Our step-by-step guide will unleash your creativity and make every reading session a delightful journey!

Secrets of the Alphabet 30

Take a trip with us as we discover the ancient origins and mysterious evolution of the letters that shape our words, thoughts, and dreams. From the enchanting tales behind each letter to the powerful impact of words in our life today, this article will ignite your curiosity and inspire a deep appreciation for the art of language.

The Mystery of the Giant Squid 34

Did you know that giant squids have remained hidden from human eyes for centuries? In this exciting article, we delve into the depths of the ocean, where these colossal cephalopods lurk in the shadows, protected in myth and legend.



Answers for What'cha Reading, page 41:

1a. False	2a. 2000
b. True	b. 2004
c. True	c. 1856
d. False	d. 3

Answer for Brain Games, page 40:

Secret Word: Coral

Ask Jules?

Amelia (9)
from Green Point asked us:

What causes thunder & lightning?

Jules

Have you ever wondered why we have thunder and lightning during storms? Well, this is because when clouds move around in the sky, they bump into each other and create electricity. This electricity builds up until it suddenly bursts out in a big flash of lightning! The lightning is like a super-fast bolt of energy that lights up the sky. And the loud rumbling thunder you hear afterwards is because the lightning heats up the air so fast that it makes a big booming noise.

Thunderstorms always have lightning (since thunder is caused by lightning, and you can't have a thunderstorm without thunder), but you can have lightning without a thunderstorm. Lightning can also be seen in volcanic eruptions, extremely intense forest fires, surface nuclear detonations, and even in heavy snowstorms! It IS possible that you might see lightning and not hear any thunder, because it was too far away. Sometimes this is called 'heat lightning' because it occurs most often in the summer. So, the next time you see lightning and hear thunder, remember that it's just nature putting on a spectacular show for us to enjoy!

Antartica's famous Penguin Post Office

Antarctica's most popular tourist destination is a unique British post office located in the heart of the Antarctic Peninsula at Port Lockroy, about 700 miles south of Argentina and Chile.

Every year, in the Antarctic summer, a colony of 3 000 gentoo penguins takes up residence. At the same time, hearty (human) enthusiasts ready the post office, gift shop and on-site museum to welcome thousands of visitors who will arrive over the course of the four-month-long tourist season. Here, the penguins mate, build nests, and raise their young by teaching them how to swim and find their own food.

After four months, when winter comes again, the Penguin Post Office closes for the season, and the fully grown chicks join their parents on their regular long distance fishing trips.

Exploding Stars

Have you ever seen an exploding star? Well, this year, you might just get your chance! Astronomers predict that sometime between now and September, you'll be able to see the explosion of the *T Coronae Borealis* star system in our Milky Way galaxy. This is called a nova, and it takes place when a small star suddenly and dramatically brightens for a short period.

This is a once-in-a-lifetime kind of event, as it only happens roughly once every 80 years! While this star is 3 000 light years from Earth, astronomers say that once the nova reaches its peak brightness, we might be able to see it for several days.

Get this!

Since T Coronae Borealis is 3 000 light years from Earth, that means that we will soon see an explosion that happened 3 000 years ago!

Creature FEATURE

Photo: Warren Chinn

The mountain stone wētā is a fascinating insect that is only found high up in the mountains of New Zealand! These little creatures are known for their strong legs and tough exoskeletons, which help them climb and hide among the rocky terrain.

These wētās can also withstand being frozen at temperatures below -10°C! This makes them the world's largest freeze-tolerant insect, as it freezes about 80 percent of its body tissues for several months, and then thaws itself! It does this to survive drastic temperature changes thanks to a protein that prevents the formation of ice crystals in its blood-like fluid.

Wētās can also change colour to blend in with their surroundings, making them hard to spot by predators like birds and lizards. They are also super strong – they can lift objects up to 50 times their own body weight!

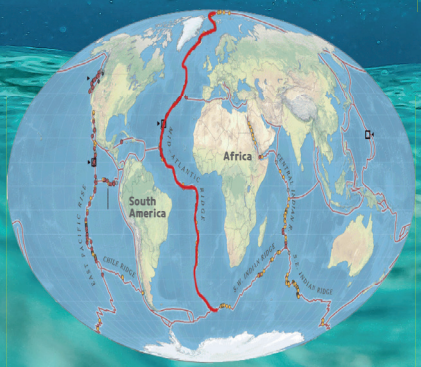
Did you know?

An octopus has 9 brains – one in its head & one in each arm

Did you know?

The Earth's longest mountain range is underwater!

It is 80 000km long and is called the Atlantic Mid-Ocean Ridge System.



Learn your local languages

sesotho edition

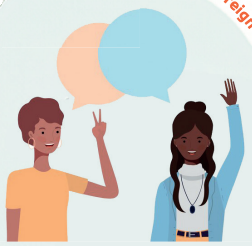
KE YA LEBOHA
Thank you!

KA KOPO
Please

DUMELA, LEBITSO LA KA KE...
Hello, my name is...

O PHELA JWANG
How are you doing?

HO JAKA KA LELEME
Meaning: To adopt a foreign Language



SALA HANTLE
Goodbye

HO NTSHANA SE INONG
Meaning: To be close friends

BOTSWA HA BO JELWE
Meaning: It doesn't pay to be lazy

HO APARELE MOTHO KOBO
Meaning: To respect

HO FATA SEOLO
Meaning: To work very hard

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The mag for curious kids

Coral reef

Photo by NEOM

Coral reefs are like bustling underwater cities, teeming with life and activity. They come in all shapes and sizes, from fringing reefs near the shore to barrier reefs that stretch for miles. Coral reefs are not just beautiful to look at – they're also incredibly important to the environment. Coral reefs make up a fraction of the ocean – less than 1% – but they provide a home to around 25% of all the world's marine life. Over 4 000 different species of fish rely on coral reefs! They also protect coastlines from erosion, provide food and shelter for fish, and even produce compounds that can be used in medicine. Sadly, coral reefs around the world are facing threats from pollution, overfishing, and climate change. It's up to us to protect these precious ecosystems and ensure that they thrive for generations to come!

Get to know the Composers

Taylor Swift

The superstar of pop music

Taylor Alison Swift was born on the 13th of December 1989 in West Reading, Pennsylvania.

Taylor's love of music grew at an early age and she progressed quickly from roles in children's theater to her first appearance before a crowd of thousands.

When she was 13, her family moved to Tennessee so she could pursue a career in country music.

In 2006, Taylor released her first single, 'Tim McGraw', with Fledgling Big Machine label 9. The song was a huge success, and spent eight months on the Billboard country singles charts.

At the age of 16, she released her self-titled debut album and she went on tour, opening for Rascal Flatts.

She was certified platinum in 2007, having sold more than one million copies in the United States. At the same time, she continued a rigorous touring schedule, opening for various country artists.

That November, she received the *Horizon Award* for best new artist from the Country Music Association (CMA).

On her second album, 'Fearless', released in 2008, Taylor burst onto the pop music scene.

Since then, Taylor has released nine studio albums, won 11 Grammys and achieved numerous number-one singles on the *Billboard Hot 100* chart.

She is one of the most successful artists in *Billboard* history, and is the first and only solo woman artist to win a Grammy for *Album of the Year* four times.

Taylor has also broken a whopping 58 Guinness World Records! Some of her records include *Most Viewed Music Video Online*, *Fastest Selling Single in Digital History* and *Most Streamed Track on Spotify in the First 24 hours*.

Taylor's fans, called Swifties, are known for being very supportive and dedicated. The opening night of Taylor Swift's 2023-2024 *Eras Tour* in Glendale, Arizona broke the record for the most-attended concert by a female artist in the US with 69 000 fans.

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UNIQUE FUNERALS AROUND THE WORLD

While losing a loved one is never easy, many cultures think of funerals as a way to celebrate life and honour their departed family member or friend. From dancing with the dead, to coffins perched on cliffs, and sky-bound ceremonies, let's learn more about some unique and intriguing funeral traditions.

Illustrations by Alexandra Botha-Green

In Tibet, there's a special way to say goodbye to loved ones called a sky burial. In this ceremony, the body is left high up on a mountain, where birds and animals eat it. This helps the person's spirit leave their body and also helps animals find food, showing how everything in nature is connected. It's a way to honor the person who has passed away and to give back to nature at the same time.

In the Northern Philippines, in the Mountain Province, the Igorot Tribe has a special tradition that has been around for thousands of years. They place coffins on stilts high up on the sides of cliffs. They believe that the higher the body is, the closer it will be to heaven. It's a unique way to pay tribute to loved ones who have passed away.

In Madagascar, the Malagasy people have a special tradition called 'Famadihana', also known as 'the turning of the bones'. This is done every five to seven years. During the ceremony, they bring the bodies of their loved ones out of their resting place, wrap them in new cloth, spray them with perfume, and dance with them. It's a time to remember their ancestors, share stories, and ask for their blessings.

The History of Pyjamas

Words by Misha Preller

Long ago, people wore all sorts of different bedtime clothes, or sometimes even slept in their regular clothes! Can you imagine trying to snuggle up for a cozy sleep in jeans or a scratchy old dress? Yikes! Thankfully, the history of pyjamas changed all of that.

A Private Affair

Pyjamas had always been a private matter: only seen by the wearer and their family. Because of this, we don't have many examples of what pyjamas might have been like five hundred years ago. Most pyjamas were shapeless pieces of fabric, cut like a long dress.

Get this!

Beyond comfort and temperature regulation, pajamas also provide a layer of protection for your skin.

Get this!

There is a whole day dedicated to wearing pyjamas – National Pajama Day on the 20th of November!

The Origin of PJs

It all started in India, many moons ago. Back then, 'paejamas' were loose pants tied at the waist with a drawstring, worn by both men and women. They were perfect for the warm Indian climate and were suitable to wear in public. Pyjamas were then introduced to Britain in the 17th century, and were originally known as mogul's breeches. Around 1870 they became popular loungewear for men, and by the early 1900s they had evolved into the sleepwear we know today.

The Evolution of PJs

In the 19th century, pyjamas as we know them today started to appear. They became two-piece outfits, with a comfy shirt and matching pants. People started wearing them around the house, too, for lounging and relaxing. Nowadays, pyjamas come in all sorts of fun colours, patterns, and designs.
And thanks to the history of pyjamas, bedtime has never been more comfy or stylish!

UNLOCKING Movie Magic

THE MARVELS OF MOTION CAPTURE

Words by Kyria-Zoe Tshimweneka
Layout by Maria Keamogetse

Step into the world of movies, like Avatar, and prepare to be amazed by the magic of motion capture! Ever wondered how those incredible characters come to life on the big screen? It's all thanks to this mind-blowing technology!

Unveiling the Magic of Motion Capture

Motion capture isn't just your average movie-making tool – it's a futuristic marvel that brings digital characters to life in ways you'd never imagine. Actors wear special suits covered in sensors that capture every single movement they make. These movements are then translated into a digital realm, where animators work their magic to create breathtaking animations. From epic battles to graceful dances, motion capture makes it all possible!

From Big Screen to Video Games

Why stop at movies? Motion capture isn't just for the silver screen – it's also a superhero in the world of video games! By blending the real world with the digital, motion capture creates immersive gaming experiences that transport players to fantastical realms.

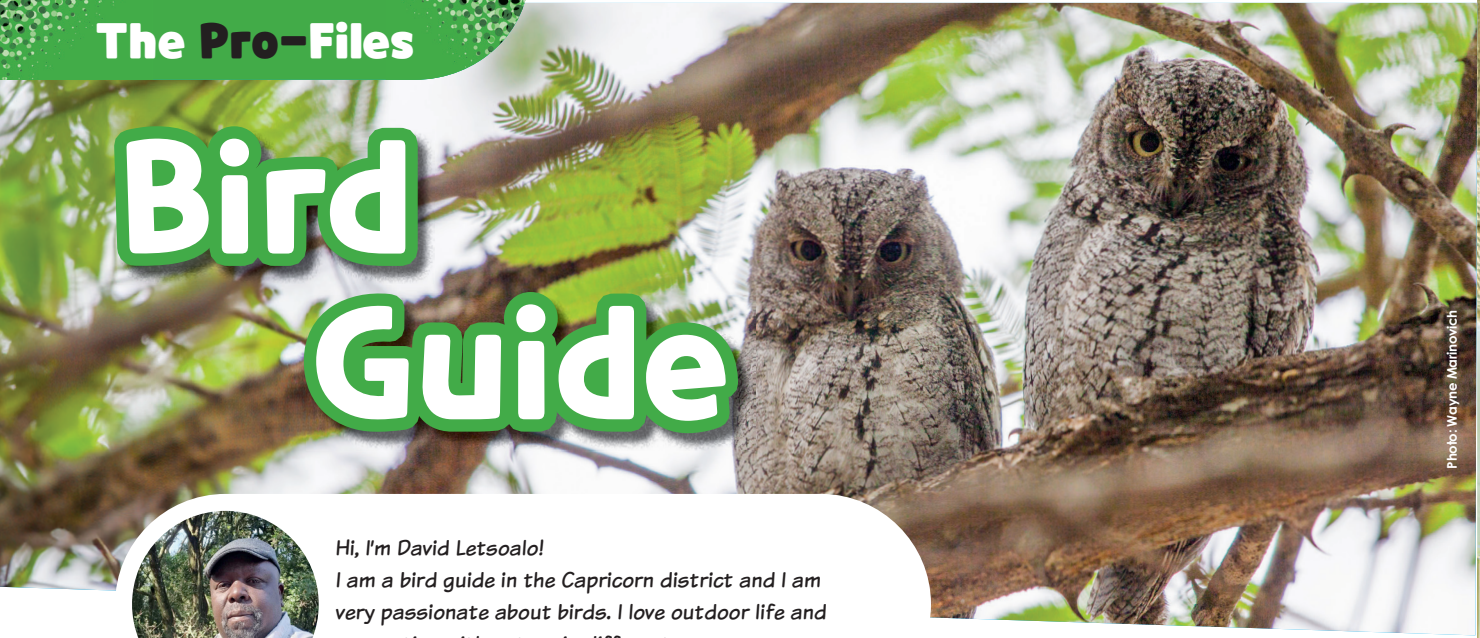
?! Get this!

'The Polar Express', released in 2004, was the first animation movie that used motion capture technology.

Saving Time and Money

Here's the best part – motion capture isn't just cool, it's also super efficient! By recording real-life movements, animators save precious time and money, allowing them to focus on creating even more jaw-dropping adventures.

Bird Guide



Hi, I'm David Letsoalo!
I am a bird guide in the Capricorn district and I am very passionate about birds. I love outdoor life and connecting with nature in different ways.

What is a bird guide?

A bird guide is trained to identify birds in the field. Guides recognize different bird species by their colors, shapes, songs, and behaviors. Bird guides also share interesting facts about birds' lives, like where they build their nests, what they eat, and where they migrate to during different seasons.

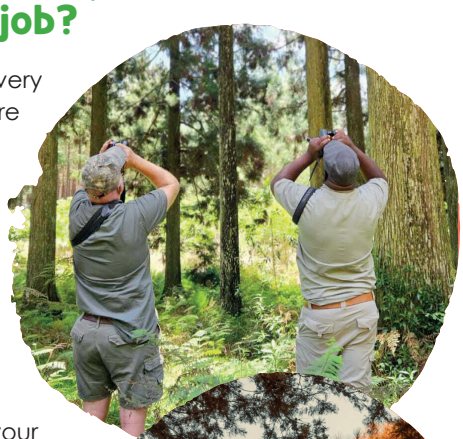
What does a normal day look like for you?

My day starts very early. When I take a group tour to a big forest, we listen to the morning calls of different birds. Then, we will walk through the forest together to find them, and I will share some of my knowledge about each species.

What is the best part of your job?

I really have a passion for birds. I love being outdoors and connecting with nature in all sorts of ways. I have been very fortunate to spot some rare and endangered birds like the Blue Swallow and Cape Parrot!

Do you need any qualifications to do your job?



Qualifications are very important. There are different institutes that offer courses for birding skills, like *Bird Life South Africa*. You can also register through *FEGASA* for your national qualification, and then register with your province as an official guide.

What are some challenges in your job?

Sometimes, birds are shy and don't want to show themselves! This can be disappointing for clients, who are excited and expect to see many different species while we are out for our tour.

David's advice

As a young fledgling, birding is the best hobby! Get to know your area and environment better. All you need is a pair of binoculars and bird guide fieldbook.

FENG SHUI

Secrets for a balanced bedroom

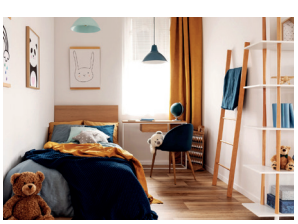
Words by Sinekhaya Fikeni

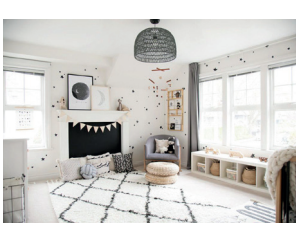
Ever wondered how the layout of your room can affect your mood and energy levels? These are the effects of Feng Shui!

Feng Shui started in China long ago, around 3 000 years back. It is based on the idea that all things in the world are linked by energy called *chi*. In Feng Shui, how you set up furniture and decorate a room can either make the energy flow better or mess it up. The aim is to make a happy place where good energy can move around easily, making everything feel balanced and full of life.

Create harmony and balance in your bedroom by arranging your furniture in a way that makes you feel calm and in control, with the help of natural elements.

- Make sure your room includes some of feng shui's five principles. One principle is the commanding position, meaning the main area where you spend most of your time should face the door. This helps you feel safer in your room.
- Try to incorporate the different colours that are associated with the five natural elements – brown, orange, and yellow for earth, white for metal, black for water, green and blue for wood, and red for fire.
- Since Feng Shui embodies nature, your room should let in as much natural light as possible. You can play light music in the background to keep energy active in your bedroom.
- Don't keep any unnecessary objects or clutter inside your room. These items will just add to your stress and take away from your energy.





?! Get this!

Feng shui means 'wind and water' in Chinese.

?! Get this!

Did you know that red is not just a color in Chinese culture? It's a symbol of happiness, luck, and celebration!

Switzerland

The land of mountains & lakes

Words by Andrea Vermaak

Switzerland has to be one of the most beautiful countries I've ever visited.

If you love mountains, forests, crystal clear lakes and picturesque villages, you'll never want to leave Switzerland.

Brilliant bridge

I had to explore Lucerne's famous Chapel Bridge. Lucerne is a beautiful old city in central Switzerland. Chapel Bridge is the oldest covered wooden bridge in Europe. It was originally built around 1332 as part of Lucerne's fortifications.

It's also a unique bridge because you can see paintings from the 1600s on the gables inside the bridge. The paintings show Lucerne's and Switzerland's history.

Photo by Gotta Be Worth It

The bridge also runs past an old water tower built around 1300. It's been used as a prison, torture chamber, municipal archive and local treasury. Today, there's a gift shop in the tower, which I, of course, visited.

Photo by Matevz Lavric

Most animals in Switzerland live in the mountains. The ibex, a species of mountain goat, was hunted to near extinction in the early 1800s. The species has since been reintroduced and more than 15 000 ibex now live in the Swiss Alps.

Yodelayheehoo!

I just had to ask my guide, Ulrich, about yodeling. It's a type of singing that involves rapid changes between high and low-pitch notes. It was originally a way for mountain herders to call their livestock. It was even used to communicate between nearby villages in the mountains!

Of course, I had to buy some Swiss chocolate! I bought a famous brand with a pyramid-shaped peak on the packaging. This is one of Switzerland's most iconic mountains, the Matterhorn. It's 4 478m above sea level, making it one of the highest mountains in the Alps and Europe.

You can't visit Switzerland without trying a traditional fondue. We made our way to Zurich, where fondue was first eaten in the 1600s. Fondue began as a way to use aged cheeses and bread to feed people that had limited access to fresh food during the winter months.

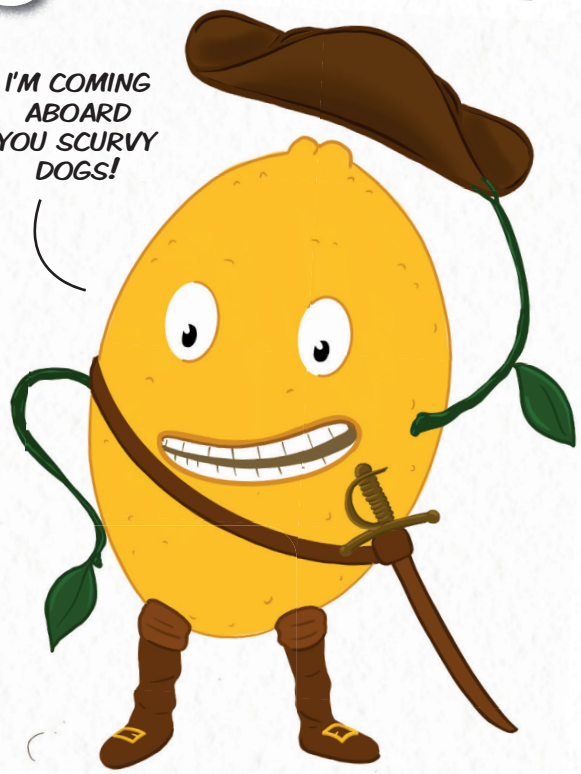
Juicy Facts about FRUIT

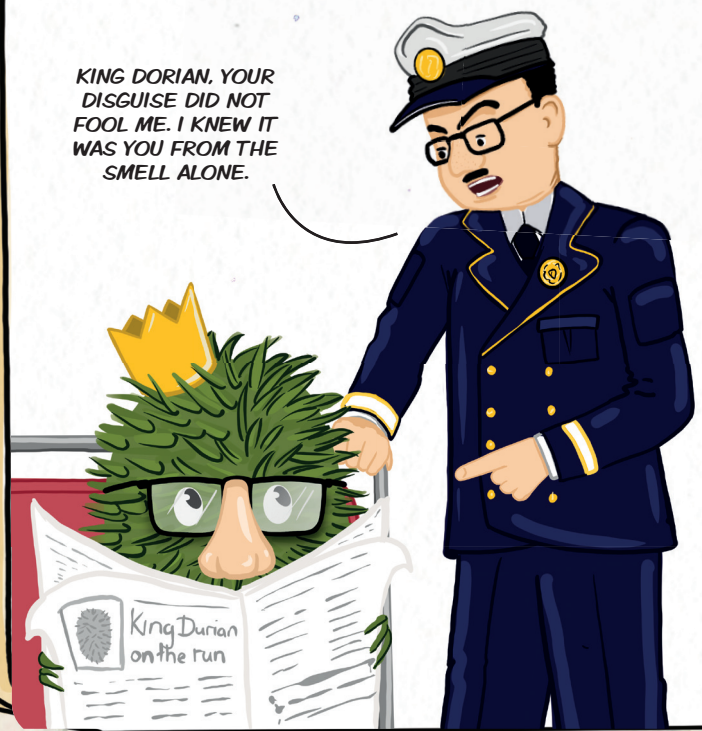
Welcome to the wacky world of fruits. Get ready to peel back the layers of fruity facts and discover some juicy secrets that will make you see fruit differently!

Words by Chanel Roux and Candice Robertson
Illustrations by Benoît Knox

The tangy fruit that adds zest to your life

Lemons are a mix of two wild fruits called citron and bitter orange. They are classified as hesperidia, which are technically a type of berry! They originally come from the wild parts around Asia, and are about 8 million years old. In the mid-1700s, lemons became famous when Scottish doctor James Lind discovered that they could help cure sailors of scurvy, even though Vitamin C had not yet been discovered.



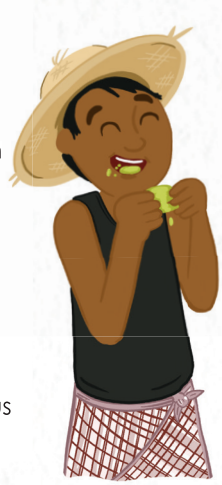


The stinky fruit that is banned on public transport

The durian fruit, known as the 'king of fruit' in Southeast Asia, has a strong smell that some people don't like. It's so stinky and overwhelming that you can't bring it on public transportation in Singapore or into certain places like hotels. Its scent has been described as a combination of sulfur, sewage, fruit, honey, and roasted and rotting onions. But some people think the fruit's flesh tastes really good, like caramel and almonds!

The killer fruit that packs a punch

Jackfruit is one of the world's largest fruits. These giant, spiky beasts can grow to be 60cm in length and weigh 18kg – per fruit! And, they have been known to kill people when they fall off trees. Apparently, they taste like a combination of a banana, mango, melon, and papaya – delicious but deadly.

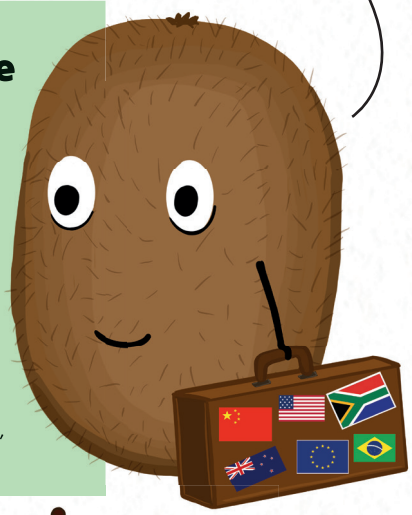


The oldest fruit in the world

Figs are one of the oldest fruits which people have been growing since ancient times. Scientists have found old fig remains that show they were one of the first fruits people learned to grow and cultivate. Figs are like a tasty time machine back to when people first started farming!

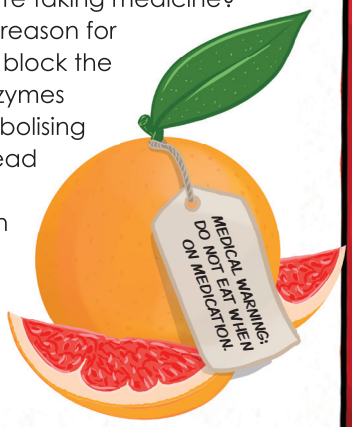
The furry fruit that travelled the world

Kiwi isn't originally from New Zealand or Australia! This fruit was originally grown in China and was known as the Chinese gooseberry until 1959. Today, kiwis are grown all around the world and have a very long growing season, lasting around 240 days.



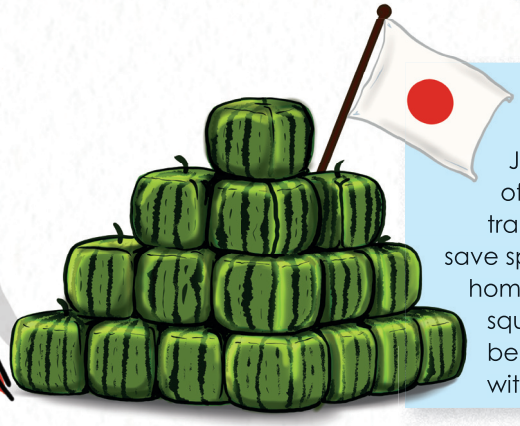
The sneaky fruit that could kill you

Have you ever been told not to eat grapefruit when you're taking medicine? Well, there's a good reason for that! Grapefruit can block the action of certain enzymes responsible for metabolising medication. So, instead of the medicine getting broken down like it should, it stays in your body longer (and can have some bad side effects).



The refreshing fruit that is breaking the mould

Japanese watermelon is unique because it's grown in the shape of a cube. This trend started in 1978, in order to allow for easy transportation of the fruit, make the watermelons 'stackable', and to save space in fridges! Nowadays, the southern Japanese city of Zentsuji is home to Japan's square watermelon industry. The city has a patent on square watermelons, so it's the only place where they're allowed to be grown and farmed. Watermelon farmers are also experimenting with other shapes, like watermelon hearts and pyramids!



OUT of THIS WORLD hairstyles

Metallic Trees – Gold
Photo by Stacey Smoker, USA

The *International Beauty Industry Awards* is an international hair competition open to any salon, stylist or hair artisan, from all over the world! This artist-funded platform was founded on the belief that inclusivity and accessibility matter.

But the IBI Awards are not just hair-crazy! They celebrate all the unique areas in the beauty industry, and have nearly 50 competition categories to choose from, like Makeup Artistry, Film and TV, Hair Artistry, Stage and Event, Special Effects, Men's Makeup, and even Bridal.

The competition takes place online, so participants from all over the world are encouraged to enter by sending in photographs of their magnificent creations. Let's take a look at some of 2023's top entries!

The Moth
Photo by Sawamaru Pokiru, Japan

You can flutter right into style with this moth-inspired 'do! Did you know that there are 135 000 different species of moths? And experts estimate there are at least 100 000 more moths still undiscovered! #MothMania #FlutteryFun #WingedWonder

Our Journey – Hope
Photo by Ryuta Tomono, UK

Embrace the fluff and add a touch of whimsy to your colourful cotton candy look. Bet you didn't know that a thread of candyfloss is thinner than a human hair! #SweetHairDay #WhimsicalWaves #RadiantRainbowLocks #ColourfulCrown

Fierce
Photo by Brayden Pelletier, USA

This burst of heat and flair is sure to turn heads and make you the hottest trendsetter around! And, the color of a flame changes based on the oxygen levels present. #FierceFlames

Papillon
Photo by Brayden Pelletier, USA

Those delicate twists & vibrant hues perfectly capture the whimsy of graceful butterflies. Did you know that they taste with their feet?! #WingedWonder #BeautyInFlight #FlutterFly

Patience Ponytail
Photo by Lynn Levesque, USA

Who says your hair can't be the garden of your dreams? With delicate roses that add a touch of romance, now everyone can enjoy the rosy reign of your hair #PonytailPerfection #Bloomin'

Beauti
Photo by Brendnetta Ashley, USA

With every twist and turn, you can create a walking work of art that turns heads and inspires awe wherever you go. #IntricateElegance #TressedToImpress #StyleSculpture

Macaw mates

Photo by David Clode

On the left, we have a Blue and Gold Macaw, and on the right, a Scarlet Macaw. These majestic birds are native to the rainforests of Central and South America, where they live high up in the canopy. With their vibrant feathers and loud calls, they bring the jungle to life! Macaws have a unique appearance just like a human fingerprint! They range in color from the brightest red through to turquoise, yellow and bright indigo, and are really a sight to be seen! What's amazing is that each bird's coloring is distinct to where they live, and their vibrant colors actually blend quite well with the Amazon's rainbow-coloured plants and foliage.

Invasive SPECIES

Words by Candice Robertson
Illustrations by Benoît Knox

What is an invasive species?

An invasive species is a plant, animal, or other organism that is not native to a specific area but is introduced there, often by humans. These species can cause big problems because they reproduce rapidly and outcompete native species for resources like food, water, and space.

Kudzu is a plant native to Japan and southeast China. When it was introduced to North America in the 19th century, it earned the nickname the 'Vine that ate the South'.

Invasive species can arrive in new areas in a few ways, like through international trade and travel, where they hitchhike on cargo ships, airplanes, or vehicles. Some species are intentionally introduced for agriculture, landscaping, or pest control, but can escape and become invasive. Others are released into the wild by pet owners, when they grow too large or become unwanted. Other natural events like floods or storms can also spread invasive species to new areas.

In 1949, five cats were brought to Marion Island in South Africa, to help with pest control for mice. By 1977, about 3 400 cats were living on the island, endangering the local bird population.

Brown tree snakes are responsible for the extinction of nine of Guam's 11 forest-dwelling bird species.

The Chinese mitten crab was brought to the UK through ballast water on ships coming from East Asia.

Cane toads were introduced as a way to control crop pests. They produce a toxic ooze that kills their predators.

Small zebra mussels clog the cooling systems in boat engines, while larger ones have damaged water pipes at power plants.

Invasive species categories

In South Africa, invasive species are grouped into four categories based on the impact they have on the environment:

- Category 1a includes species that pose a threat to biodiversity, ecosystems, or human activities, and they need to be removed or controlled immediately.

- Category 1b species are already established and are spreading, and must be controlled and removed.

- Category 2 species are invasive in certain areas or have the potential to spread rapidly. Since these species are restricted, you must have license to work with them.

- Lastly, Category 3 species are invaders that haven't yet spread widely but have the potential to do so if not controlled.

Get this!

The majority of all recorded extinctions take place on islands – and have all been caused by invasive species.

Get this!

There are a total of 559 invasive animals, plants and microbial species on South Africa's National List of Invasive Species.

Invasive SPECIES in South Africa

Guttural toad

Invasive Status 1b

Originally from Central and East Africa, guttural toads were brought to Cape Town in the 1930s to help control agricultural pests. Since then, they have spread all over the country. These toads compete with our local frogs for food and homes, and their skin can make pets and other animals sick. They also carry diseases that can hurt our local frogs.

Grey squirrel

Invasive Status 3

Grey squirrel, originally from North America, were brought to South Africa as pets. However, they escaped and now live in the wild. These squirrels compete with our local squirrels for food and homes, and they sometimes steal eggs and chicks from birds.

Mallard duck

Invasive Status 2

Mallard duck, originally from Europe and North America, were brought here for hunting and to look pretty. Now they live in the wild, and their aggressive behavior and high reproductive rates threaten local bird species by competing for nesting sites and food resources. People are working to control the number of mallards to protect our native birds.

European rabbit

Invasive Status 1a

These rabbits were brought here from Europe for hunting and farming purposes. However, the rabbits multiplied quickly and spread to many areas, causing problems for native plants and animals. They eat a lot of plants, which can damage the environment, and they can also carry diseases that affect other animals.

Wattle

Invasive Status 2

The wattle plant, especially the black wattle, is an invasive species in South Africa. Originally from Australia, these trees were brought here for wood and tannin. But now they're spreading fast, taking over natural areas and pushing out our local plants. Wattle plants grow quickly, making it hard for other plants to survive, and they use up a lot of water.

Water hyacinth

Invasive Status 1b

These invasive plants are causing big problems in South Africa's waterways and other places around the world. People brought them here because their flowers are pretty, but now they're spreading too fast. They grow quickly and cover the water's surface with thick mats, blocking sunlight and oxygen. This harms fish and other wildlife, disrupts ecosystems, and clogs up waterways, making it hard for boats to navigate. Controlling water hyacinths is important to protect South Africa's rivers, lakes, and wetlands from their damaging effects.

Soft-shell terrapin

Invasive Status 2

Originally from North Africa and the Middle East, these terrapins were introduced to South Africa for the pet trade. However, some terrapins escaped or were released into the wild, where they multiplied in rivers, dams, and wetlands. Soft-shell terrapins compete with native turtles for food and habitat, and their aggressive behavior can disrupt local ecosystems.

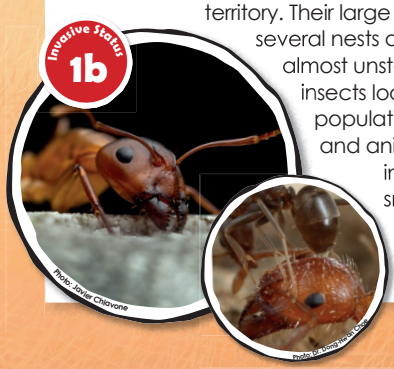
Harlequin ladybug

Invasive Status 1b

The harlequin ladybug, originally from Asia, is an invasive species in many parts of the world, including South Africa. People brought them to new places to control pests in gardens and farms. However, these ladybugs breed quickly and compete with native ladybugs for food and habitat. They also eat other insects, including beneficial ones like butterflies and native ladybugs.

Argentine ant

Invasive Status 1b



The Argentine ant, originally from South America, form supercolonies that outcompete native ants for food and territory. Their large colonies consist of several nests and queens, making them almost unstoppable against other insects looking for food. Their large populations can also harm plants and animals, and threaten native invertebrates and even small vertebrates that are not used to defending against these aggressive ants.

Spotted bass

Invasive Status 1b

Originally from North America, spotted bass were introduced to South Africa for sport fishing. However, they have since spread to various water bodies, including rivers and dams, where they compete with native fish species for food and habitat, and prey on smaller fish.

Rose-ringed parakeet

Invasive Status 2

These colourful birds, originally from Africa and South Asia, were introduced as pets. But some accidental escapes and intentional releases of caged birds mean that they now have established populations in lots of urban areas. These parakeets steal nests from other birds that make their homes in trees and are very competitive for food. Their large flocks can cause damage to crops and trees, as they destroy the seeds of native trees and strip away their bark.

Pompom weed

Invasive Status 1b

The pompom weed from South America was introduced accidentally, likely as a contaminant in crop seeds. It grows fast and spreads quickly, covering fields and open spaces with its flowers. Because it retreats underground during winter, this weed survives fires and frost, and is hard to get rid of! Pompoms also produce a lot of seeds that are easily scattered by birds and wind. It has invaded many natural grasslands, open savanna and wetlands.

Red claw crayfish

Invasive Status 1b

The red claw crayfish is an invasive species in many parts of the world. Originally found in Australia, these crayfish were introduced to South Africa for aquaculture and aquarium trade. However, some of these crayfish escaped into the wild and multiplied in rivers, dams, and other freshwater habitats. Red claw crayfish are vicious predators and compete with other native species for food and habitat. They are also a big probelm for fisheries, as they are known for destroying fishing gear.

Get this!

Climate change can make it easier for invasive species to spread by altering habitats and creating new opportunities for invaders to establish themselves in areas where they couldn't survive before.

Jacaranda tree

Invasive Status 1b

Originally from South America, jacarandas were introduced for their beautiful purple flowers and shade. However, they have spread quickly, particularly in cities and urban areas, where they outcompete native plants and trees for resources. Their dense leaves can also block out sunlight, making it difficult for other plants to grow.

The dangers of invasive species

Invasive species pose serious dangers to South Africa's environment and economy. They can outcompete native plants and animals, leading to a loss of biodiversity. These invaders also have economic impacts, as they can damage crops, forestry, and infrastructure.

Additionally, some invasive species can spread diseases that affect both wildlife and humans. They can even change landscapes, like when invasive plants crowd out native plants in a forest, changing the whole makeup of the ecosystem. Controlling invasive species is crucial to protect native ecosystems, maintain biodiversity, and safeguard South Africa's natural resources.

Invasive species are a major threat to biodiversity worldwide, second only to habitat destruction. They can disrupt ecosystems, displace native species, and even lead to extinctions.

What to do about invasive species

Here are some things you can do to help fight the spread of invasive species:

- Make sure the plants you buy for your home or garden are not invasive.
- When boating, make sure to clean your boat thoroughly before putting it into a different body of water.
- Clean your boots before you hike in a new area.
- Don't take home any animals, plants, shells, firewood, or food from different ecosystems.
- Never release pets into the wild.
- Volunteer at your local park, refuge, or other wildlife area to help remove invasive species.

South Africa is known for its rich biodiversity, including a wide variety of native plants, like proteas.

To stop invasive species from spreading, we need strong biosecurity rules, including border controls, early detection systems, and public awareness.

Make a Pressed Flower Bookmark

Do you have a bunch of flowers that you really like? Use them to make a special pressed flower bookmark to keep inside all your books. With just a few simple materials and a touch of creativity, you'll be able to create your very own bookmark that's as unique as you are.

What you need:

- Flowers
- Tissue/toilet paper
- Books
- Scissors
- Cardboard paper
- Glue
- Clear tape
- Ruler
- Pencil

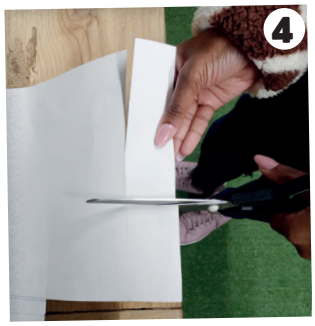
1 Select three to four different types of partially dry flowers.

2 Place your flowers between two sheets of tissue or toilet paper.

3 Put your flowers in the middle of a book. Add more books on top and leave your flowers to press for 10 days.

Try this!

Make a small hole at the corner of your bookmark to add a ribbon. This will make it easy to see when placed between book pages.



4 With a ruler and pencil, draw your bookmark on the cardboard and cut it out.

5 Place your flowers carefully on your bookmark to create your design.

6 Apply glue to the back side of your flowers and stick them onto the cut board paper.

7 Apply clear tape over your bookmark to protect the flowers.

The Secrets of the Alphabet

Words by Lizette van Niekerk
Layout and illustrations by Alexandra Botha-Green

Can you figure out what these sentences mean? ♥ u! U☺? Without letters and words, we can't be 100% sure! And without the alphabet, our world would be very different indeed. We couldn't read or write, and trying to understand books, newspapers and letters would be like cracking a mysterious code. But have you ever wondered where the alphabet we know today came from? And why do the letters look the way they do?

What is an alphabet?

An alphabet is a group of symbols that represent the sounds in a language. These symbols, called 'letters', join together to make words. With words, we can create sentences that help us share ideas clearly with others. In our alphabet, the letters A, E, I, O, and U are called vowels, while all of the others, like B, C, D, and so on, are called consonants.

?! Get this!

A phoneme is the smallest unit of sound in a word. We combine phonemes to make words! Some examples of phonemes are ch, f, ph, t and th.

HINDI DEVANĀGARĪ ALPHABET

अ आ इ ई उ ऊ ऋ ए
ऐ ओ औ अं अः

क ख ग घ ङ च छ ज झ
ञ ट ठ ड ढ ण त
थ द ध न प फ ब भ

म य र ल व श ष स ह क्ष
त्र ज्ञ

JAPANESE HIRAGANA ALPHABET

あ い う え お か き
く け こ さ し す せ
そ た ち つ て と な
に ぬ ね の は ひ ふ
へ ほ ま み む め も
や ゆ よ ら り る れ
ろ わ ゐ ゑ を ん

ROMAN ALPHABET

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

?! Get this!

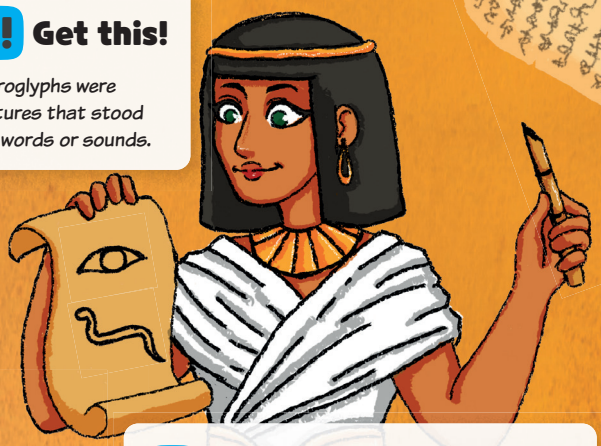
Our alphabet, called the Roman alphabet or the Latin alphabet, consists of 26 letters – five vowels, 20 consonants, and y, which can act both as a vowel and a consonant.

The roots of the alphabet

Before there were letters, people used to communicate through drawings. The ancient Egyptians were among the first to use drawings called hieroglyphics to record their stories, thoughts, and traditions in written form. But drawing every single word took a lot of time and effort, so people started looking for a faster way to write.

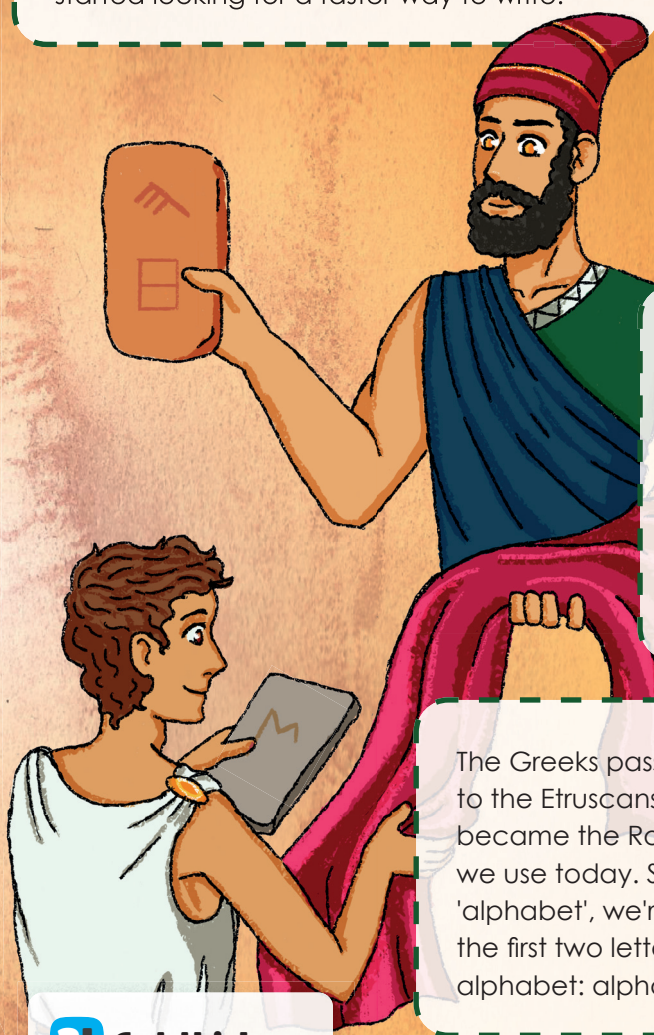
Get this!

Hieroglyphs were pictures that stood for words or sounds.



Get this!

The tools available to the Ancient Egyptians greatly influenced the hieroglyphs they drew. They mostly used reed brushes and ink made from natural materials like charcoal and minerals.



That's when the idea of representing sounds as symbols came along. People in the Eastern Mediterranean made a new kind of writing with 22 letters, but no vowels. These letters came from the sounds of words, not just pictures. This writing spread and changed over time. The Phoenicians, who were traders, used it, and the Greeks added vowels to make it easier to read.

The Greeks passed their alphabet to the Etruscans in Italy, and it became the Roman alphabet we use today. So when we say 'alphabet', we're actually using the first two letters of the Greek alphabet: alpha and beta!

Get this!

About 100 languages use the Roman alphabet.

The importance of the alphabet

The invention of the alphabet was a game-changer. Before writing, people could only communicate face to face. This meant that information couldn't be easily shared or preserved for future generations. It also meant that details could be changed or added, and the original meaning of the story could be lost. But with the alphabet, everything changed. Traders and merchants could now keep records of their business dealings, and scholars could write down their ideas and discoveries!

The letters of the alphabet

Let's take a closer look at the origins of the groups of letters that make up the alphabet. The letters we use today have changed a lot since the first Semitic alphabet was invented almost 4 000 years ago. Some letters look a bit like the ones they came from, but many of them look very different now.

The symbol that represented the first letter in the Phoenician alphabet, *aleph*, which looks similar to our **A** on its side, came from a hieroglyph that looks like the head of an ox. Over time it was changed to the A we know today.

The original **B** was borrowed from the Egyptian hieroglyph for 'hut' or 'shelter'.

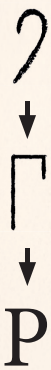
As different civilisations adapted the alphabet, the Greeks gave the letter **F** its current appearance, although it sounded more like the English 'W'.

By the time the Romans had an alphabet, C had both a k and a g sound, and they added a spur to form **G**.

H comes from an Egyptian hieroglyph and later Phoenician letter for 'fence'. The Romans changed it to our H.

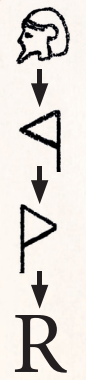
The letters **I** and **J** were initially the same for the Romans – I. It was used both as a consonant and a vowel. The Romans elongated the consonant to look like our J to differentiate between the two pronunciations.

The letter **O** comes from the hieroglyph meaning 'eye', and the Phoenicians simplified it.



In the Semitic alphabet, our **P** looked like a curved line. The Phoenicians changed it a bit and after them the Romans changed it to look like our P.

Q possibly comes from the Semitic alphabet and was pronounced 'koph'. The Romans changed it to its current appearance to be used before u.



R comes from the hieroglyph of a human head. Eventually it was changed to our R.

The letter **W** originated in the Middle Ages in the English language. It was two u's side by side and sounded much like v, and sometimes looked like two v's. It was later changed to W.

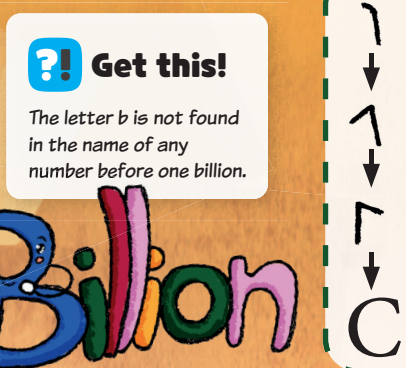
X comes from the Phoenician letter 'samekh' which means 'fish' and had a hard s sound. In the Greek alphabet, the letter 'chi' looks like X, which comes from the Etruscan alphabet, but does not sound like our X.

Y as it is used today was added by the Romans to be used in Greek words.

The Phoenician letter 'zayin' meant 'weapon', and it looked much like our 'I'. The Greeks adopted it as 'zeta', and although the Romans did not have a use for the letter **Z**, they kept it to write Greek words

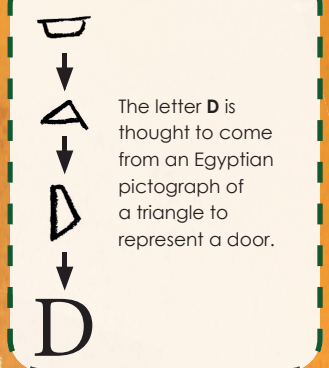
Get this!

The letter b is not found in the name of any number before one billion.



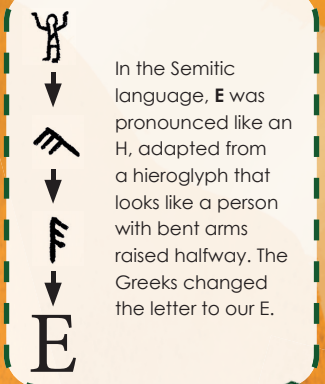
C came from the hieroglyph representing a throwing stick. The Greeks called it 'gamma', and the Etruscans (Italians) gave the letter its crescent shape.

C



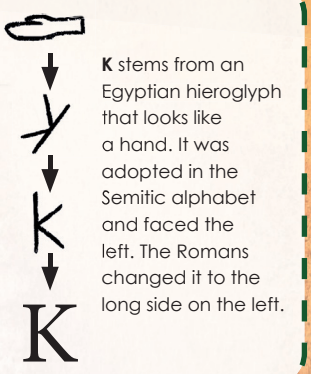
The letter **D** is thought to come from an Egyptian pictograph of a triangle to represent a door.

D



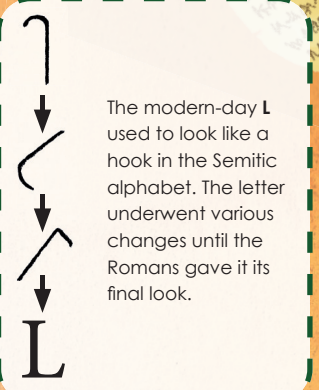
In the Semitic language, **E** was pronounced like an H, adapted from a hieroglyph that looks like a person with bent arms raised halfway. The Greeks changed the letter to our E.

E



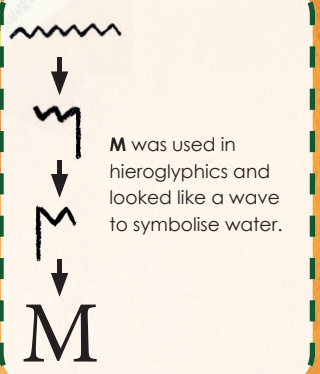
K stems from an Egyptian hieroglyph that looks like a hand. It was adopted in the Semitic alphabet and faced the left. The Romans changed it to the long side on the left.

K



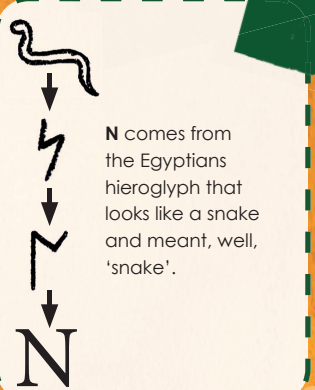
The modern-day **L** used to look like a hook in the Semitic alphabet. The letter underwent various changes until the Romans gave it its final look.

L



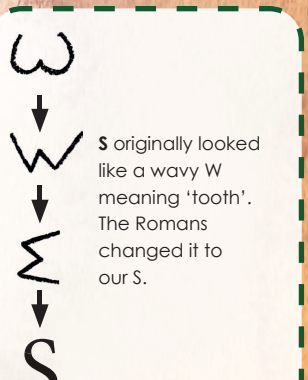
M was used in hieroglyphics and looked like a wave to symbolise water.

M



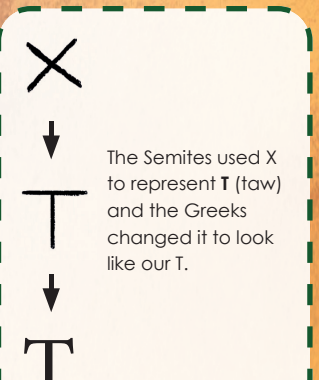
N comes from the Egyptians hieroglyph that looks like a snake and meant, well, 'snake'.

N



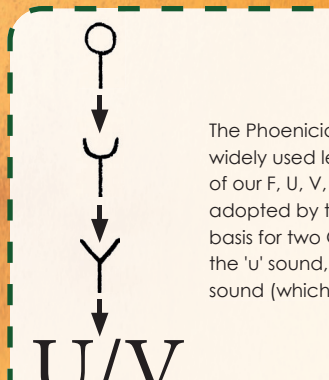
S originally looked like a wavy W meaning 'tooth'. The Romans changed it to our S.

S



The Semites used X to represent **T** (taw) and the Greeks changed it to look like our T.

T



The Phoenician 'waw' was one of the most widely used letters, and lead to the creation of our F, U, V, W and Y. The 'waw' was adopted by the Greeks and used as the basis for two Greek letters: 'upsilon' signifying the 'u' sound, and 'digamma' for the 'f' sound (which would become our v).

U/V

Crack the code

The historical characters on page 31 have written some letters of the alphabet. Use this page to help you decode the letters they have written and see if you can arrange them to spell out a word.

Hint: this 7 letter word appears somewhere on page 30 and represents sounds in a word!

Get this!

The words 'uppercase' and 'lowercase' for 'big letters' and 'small letters' come from the 1400s when the printing press was invented.

the MYSTERY of the GIANT SQUID

Words by Euan Springfield & Candice Robertson

Deep beneath the waves, in the shadowy depths of the ocean, lurks a creature of legend and mystery – the giant squid! For centuries, sailors told tales of monstrous sea monsters with long, twisting tentacles that could drag ships to the ocean floor. These stories sparked imaginations and fueled fears, but few believed such creatures could exist.

THE MYTH AND MYSTERY

Hundreds of years ago, before airplanes and cars, people traveled on boats to get from place to place. As they sailed, they would always be on the lookout for scary sea creatures, but there was only one creature they were really scared of… the Kraken!

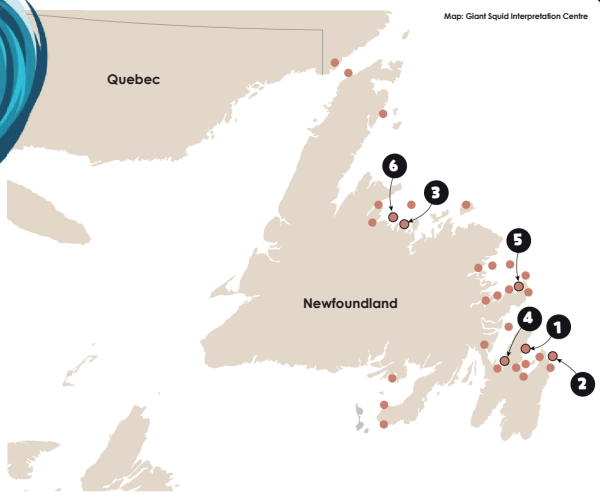
The Kraken was a huge sea monster that could sink entire ships with one swing of its giant tentacle. Over the years, the story of this massive sea monster continued to be told. In 1550, sailors described this giant, tentacled creature, calling it a "sea monk". Only 300 years later, in 1856, did scientist Japetus Steenstrup come up with the term "giant squid" to describe these very real sea creatures.

EARLY DISCOVERIES

Giant squids spend most of their time deep in the dark ocean, not coming to the surface often. Because of this, they are very rarely seen. Most of the first evidence of giant squids came from their remains washed up on beaches or found in the stomachs of sperm whales. However, it wasn't until the 19th century that scientists began to piece together the truth about these myserious creatures when a giant squid specimen was discovered off the coast of Newfoundland in 1873, providing further evidence of their existence.

A coiled tentacle of the giant squid caught in Logy Bay in 1873.

Specimens like this, caught by a research ship out of Bay Bulls in 1934, helped marine biologists learn more about giant squids.



Map: Giant Squid Interpretation Centre

1. **1873**: A fisherman's son chopped the tentacle off of a giant squid near Bell Island in Conception Bay. It was the first documented evidence that giant squid were a species and not a mythical sea monster.
2. **1873:** A group of fishermen caught a giant squid in their net in Logy Bay. It was the first species to be studied by a scientist at Yale University.
3. **1878**: A giant squid measuring nearly 17 metres from top to tentacle was discovered thrashing in the shallow tide of Glovers Harbour.
4. **1933**: A six-metre giant squid was captured near Dildo, in Trinity Bay. It was packed up and sent via horse-and-sleigh to the train station and delivered to St. Johns. It ended up at the South Kensington Museum in London, England.
5. **1981**: A nine-metre giant squid was discovered in shallow water in Hare Bay. It is now on display at The Rooms provincial museum in St. Johns.
6. **2004**: In Green Bay, Derwin Roberts, a mussel farmer, discovered the last known giant squid.

Get this!

Giant squids can grow up to 13 metres long, making them one of the largest invertebrates on Earth.

Get this!

Giant squids are cephalopods, just like octopuses, squids, cuttlefish, and nautiluses.

TECH TO THE RESCUE

Because giant squids are so elusive and difficult to find, studying them has been a huge challenge. To learn more about their behavior and habitat, scientists and engineers have had to get creative with technology. These amazing creatures live so far below the ocean's surface that it's nearly impossible for humans or standard technology to reach them. To tackle this problem, scientists have developed special submarines called deep-sea submersibles. These submarines are equipped with advanced cameras and metal arms that help them navigate the depths of the ocean.

Despite our best efforts, no one has ever seen a giant squid alive in its natural habitat. Yet, through scientific research and observation, we've learned some fascinating facts about these deep-sea dwellers.

Get this!

Giant squids have to tear their food into smaller chunks because their oesophagus is narrow and passes through the middle of their doughnut-shaped brain.

Giant squids prefer the deep, dark waters of the ocean, living between 200 and 2 000 metres deep. They typically live in areas with steep underwater cliffs, canyons, and trenches where there is an abundance of prey, such as fish and other cephalopods. There are only certain other sea creatures that are able to live in such extreme conditions, like eels, anglerfish and octopuses. These animals are all able to live in the deep sea because their bodies are used to the dark, cold waters.

Beak

Like all cephalopods, giant squids have a hard, sharp beak made of chitin, similar to the beak of a bird. This beak is located at the center of the tentacles and is used to tear apart their prey.

Tentacles

Giant squids have eight arms and two longer tentacles, each equipped with powerful suction cups lined with sharp, tooth-like structures called suckers. These tentacles are used to grasp and capture prey. They can also be used to defend themselves from predators.

Get this!

Each of the arms is a different length, ranging from 0.85 – 1.15 metres. The two tentacles are longer than the arms, and are about 2.1 metres long.

Suckers

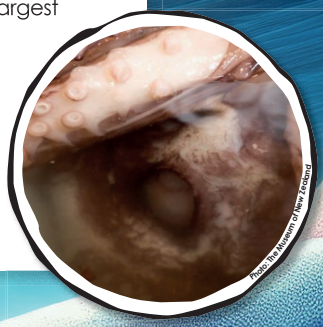
These predators have suckers on both their arms and tentacles. Each sucker is surrounded by a ring of strong muscle, and lined with super sharp teeth.

Hooks

Giant squids have incredible rotating hooks on the club-shaped ends of their tentacles. These are used for grabbing and holding prey!

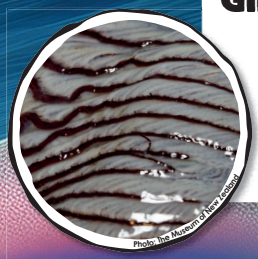
Eyes

Giant squids have the largest eyes of any known animal, measuring up to 30 centimeters in diameter. These eyes are highly developed and help the squid detect prey and navigate the dark depths of the ocean.



Gills

Giant squids have two large sets of gills on either side of their head. Seawater enters the mantle through an opening near their head, and passes over the gills so they can breathe.



Gladius

The gladius is a hard, internal structure shaped like a long, flexible rod. It is located inside the squid's body and runs along its back, providing support and structure to the soft tissues.

Mantle

The body of a giant squid, known as the mantle, is elongated and torpedo-shaped. It houses the squid's internal organs, including its digestive system, reproductive organs, and gills for breathing.

Get this!

Squid have three hearts.

Get this!

The gladius also helps control the squid's buoyancy by adjusting the amount of gas and fluid inside its body.

Get this!

Squid blood is blue. This is because squid blood contains a copper compound called haemocyanin. In humans, blood is red because of the iron compound haemoglobin.

Skin

Small pigment-containing cells, called chromatophores, give their skin its reddish-pink colour. These cells allow the squid to change color and camouflage themselves in their surroundings. When these cells contract, the skin looks paler.

Get this!

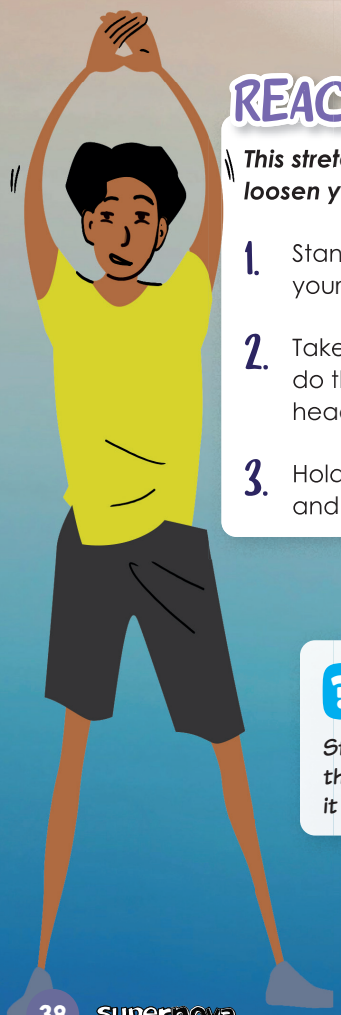
Giant squid can regenerate lost or damaged suckers. This allows them to maintain their hunting efficiency even if they lose some of their suckers during encounters with prey or predators.

Despite the incredible advancements in technology, such as cameras, submarines, and other tools that help us study giant squids, there's still so much we don't know about them. We're still uncertain about how they communicate, their lifespan, population size, and how they interact with other creatures in the deep sea. As we continue to explore the ocean's depths, there's no doubt that giant squids will continue to fascinate and intrigue us for many years to come!

5 IMPORTANT STRETCHES TO DO BEFORE EXERCISING

Words by Euan Springfield

Did you know that our muscles are what help us run, jump and move every day? They are an important part of almost everything we do. This means that we should always try and keep them feeling good. One of the best ways to do this is by stretching!



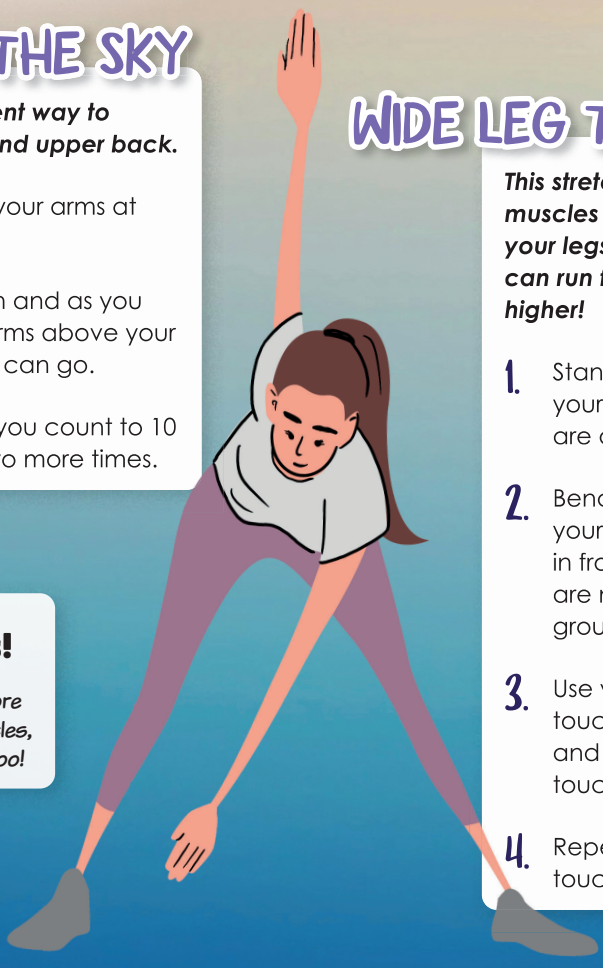
REACH FOR THE SKY

This stretch is an excellent way to loosen your shoulders and upper back.

1. Stand straight with your arms at your sides.
2. Take a deep breath and as you do this, raise your arms above your head as far as they can go.
3. Hold this stretch as you count to 10 and then repeat two more times.

Get this!

Stretching helps more than just your muscles, it helps your brain too!



WIDE LEG TOE TOUCH

This stretch helps the muscles in your back and your legs, which means you can run faster and jump higher!

1. Stand up and move your legs apart until you are at a wide stance.
2. Bend forward so that your hands are hanging in front of you, but are not touching the ground.
3. Use your right hand to touch your left foot, and your left hand to touch your right foot.
4. Repeat this and do 10 touches on each side.

BUTTERFLY STRETCH

This next stretch will help loosen up your legs and improve your flexibility.

1. Sit down for this stretch.
2. Bring your feet together so that your soles are touching and your knees bend to opposite sides.
3. Grab your feet with both hands and slowly lean forward, pushing your elbows into your thighs as you do this.

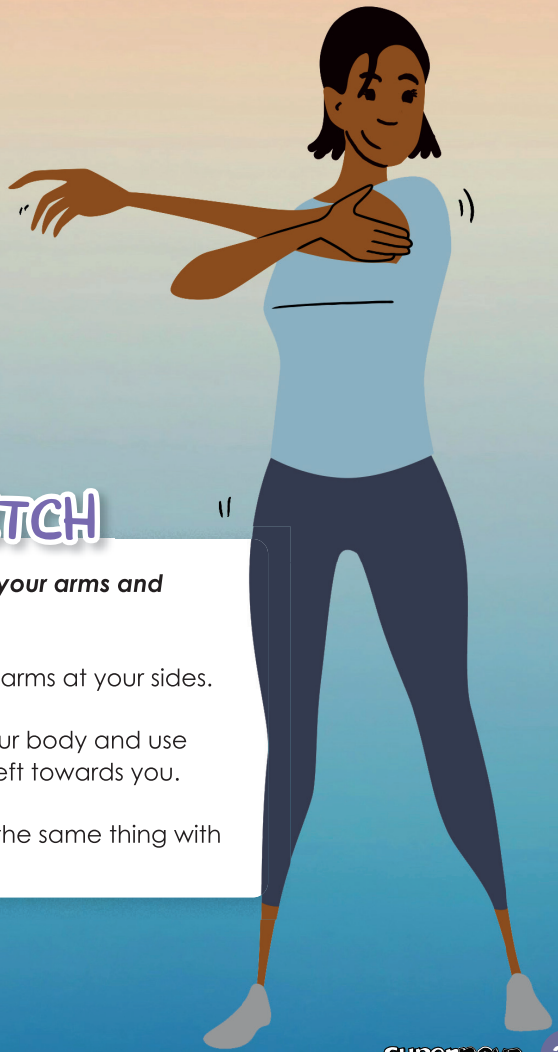
STANDING QUAD STRETCH

This stretch improves your balance and makes your muscles feel good! It will also test your balance!

1. While standing, lift your right leg up, keeping your balance while you do this.
2. With your leg lifted, grab your knee with both hands and pull it towards your stomach, holding it there.
3. Count to 10 and then do the same with your left leg.

Get this!

Stretching is important to avoid getting hurt when exercising.



SHOULDER STRETCH

This is a quick stretch to keep your arms and shoulders feeling strong.

1. While standing, relax your arms at your sides.
2. Lift your left arm across your body and use your right arm to pull the left towards you.
3. Count to 20 and then do the same thing with the other arm.

Get this!

Stretching after exercising is just as important as stretching before!

SEA SQUID QUEST

How to play

When exploring the deep blue sea, you will find all sorts of interesting things! Help guide the Giant Squid to their baby by naviagting through the maze. Along the way, you'll find some items with hidden letters to help you uncover the secret word left along the ocean floor.

1 2 3 4 5

Can you spot all of the **hidden letters** *and uncover the* **secret word?**

Find the answer on page 3

Test yourself

How much did you understand about the Giant Squid?

Read the article, *The Mystery of the Giant Squid*, on page 34-37.

Then, answer the following questions from the text.

1. Read the sentences below, then write if they are **True** or **False**.

a. Giant squid tentacles can grow to be up to 1.15 metres long. _____

b. Giant squids are special because they have the largest eyes of any animal. _____

c. Just like octopuses, giant squids are also cephalopods. _____

d. Giant squids defend themselves from predators using their sharp beaks. _____

2. Match the numbers to the correct sentence.

3 | 2000 | 2004 | 1856

a. Giant squids can live up to _____ metres deep in the sea.

b.The last know giant squid was discoverd in Newfoundland in _____.

c. In _____, Japetus Steenstrup come up with the term 'giant squid'.

d. Remarkably, giant squids have _____ hearts.

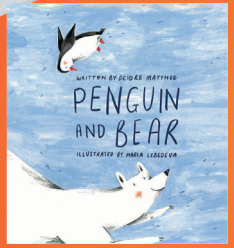
Reading Tip

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

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

BUY LOCAL BOOKS & MAGAZINES

Here's a fun new book to read!



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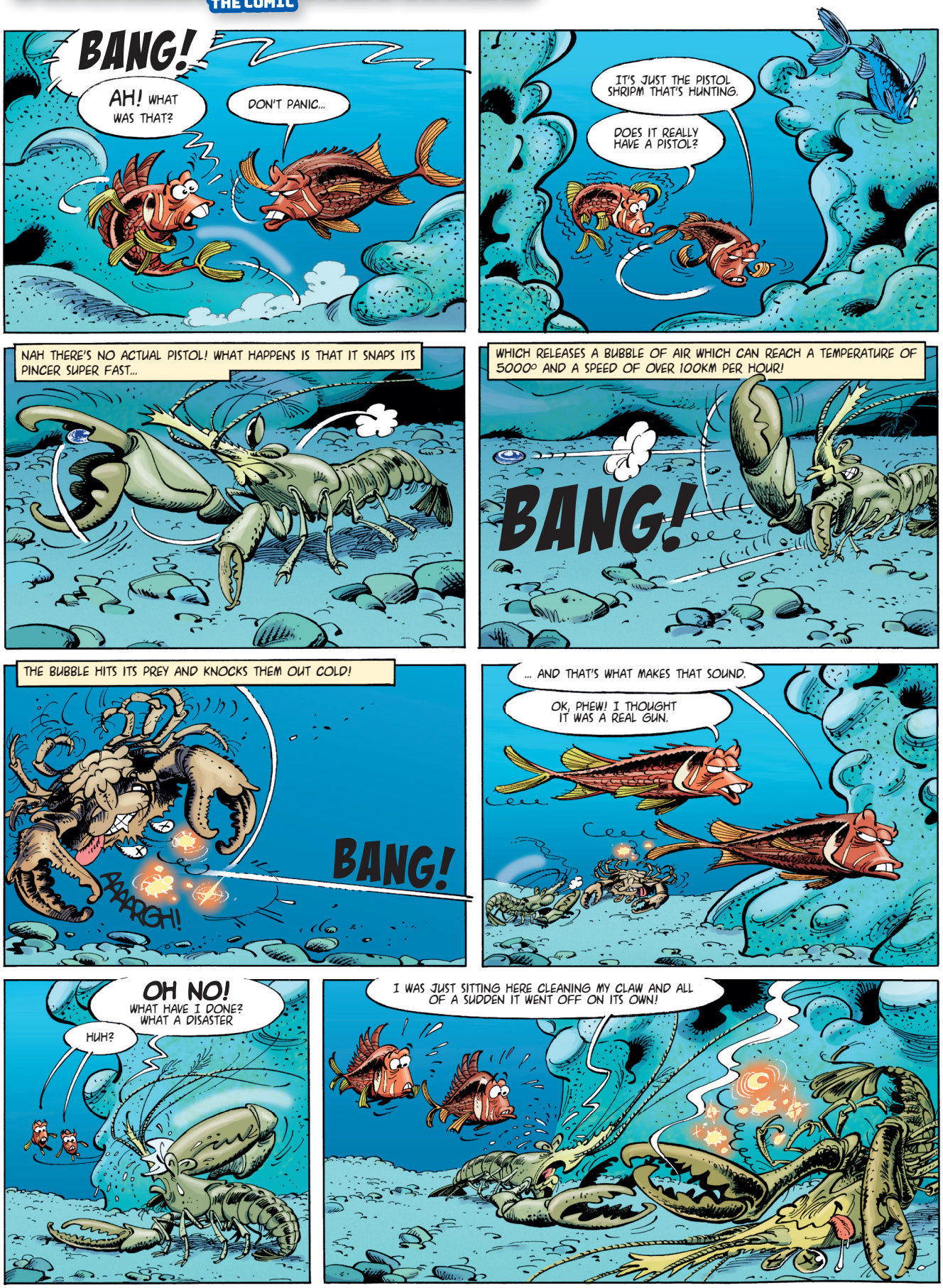
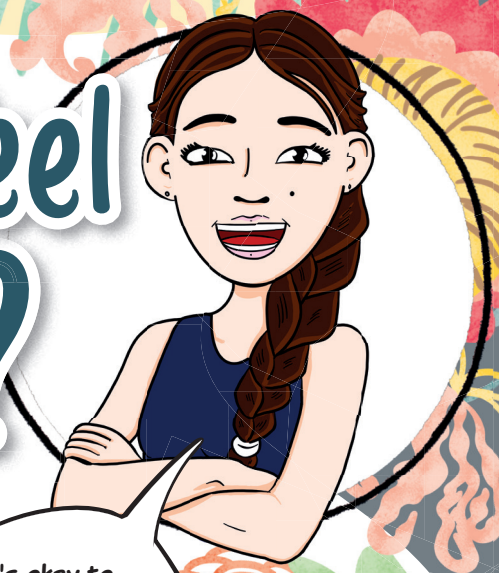
MARINE ANIMALS THE COMIC

The Pistol Shrimp



Created by Christophe Cazenove & Jytéry.
First published in Les Animaux Marins en bande dessinée, by Bamboo Edition, France.

Why do I feel homesick?



Jeffrey *11 years old*

When we go away on school camps, I get really homesick and miss my family, my cozy bed, and just being in my own room. It's hard to enjoy all the fun activities because I can't stop thinking about home. I've tried talking to my friends about it, but they all seem to be having a great time and don't really understand how I'm feeling!

It's okay to feel homesick. This is a natural reaction to being in an unfamiliar environment, and it's normal to feel this way!

We all get feelings of homesickness now and again, but don't let this ruin your fun and adventure at camp! Pack in some photos or small items that remind you of home to keep in your bunk or tent. This could be your favourite pillow, a stuffed animal, or even a pair of fuzzy slippers. Creating a cozy space for yourself can make a big difference in how you feel. Also try to focus on the positive aspects of camp. Are there any activities that you really enjoy? Make an effort to participate in those and connect with those who share your interests. Building new friendships and creating fun memories can really help distract you from feeling homesick! Lastly, don't be afraid to talk to a camp counselor or trusted teacher about how you're feeling. They're there to help and support you, and they may have some additional tips for dealing with homesickness (or can send your parents a message to let them know how you're feeling!).

Have a question for Candice?

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

Procrastination

YOUNG Léonardo da Vinci

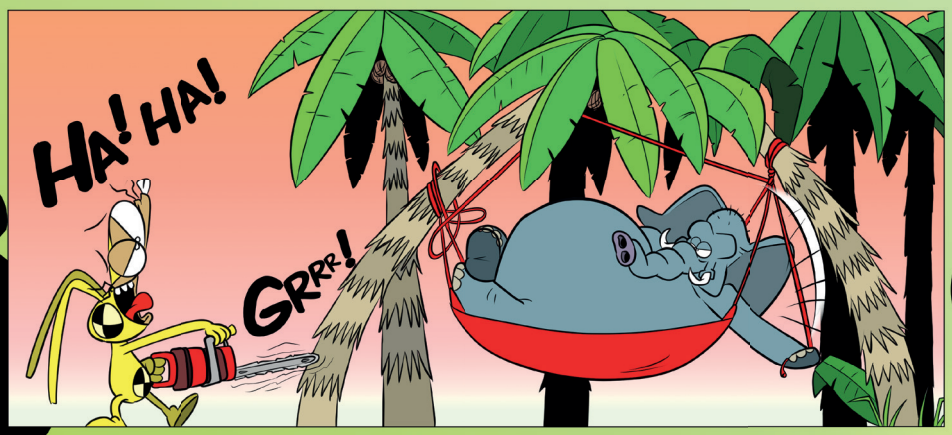
Augel

Created by William Augel.
First published in Le petit Léonard de Vinci, by La Boîte à Bulles, France.

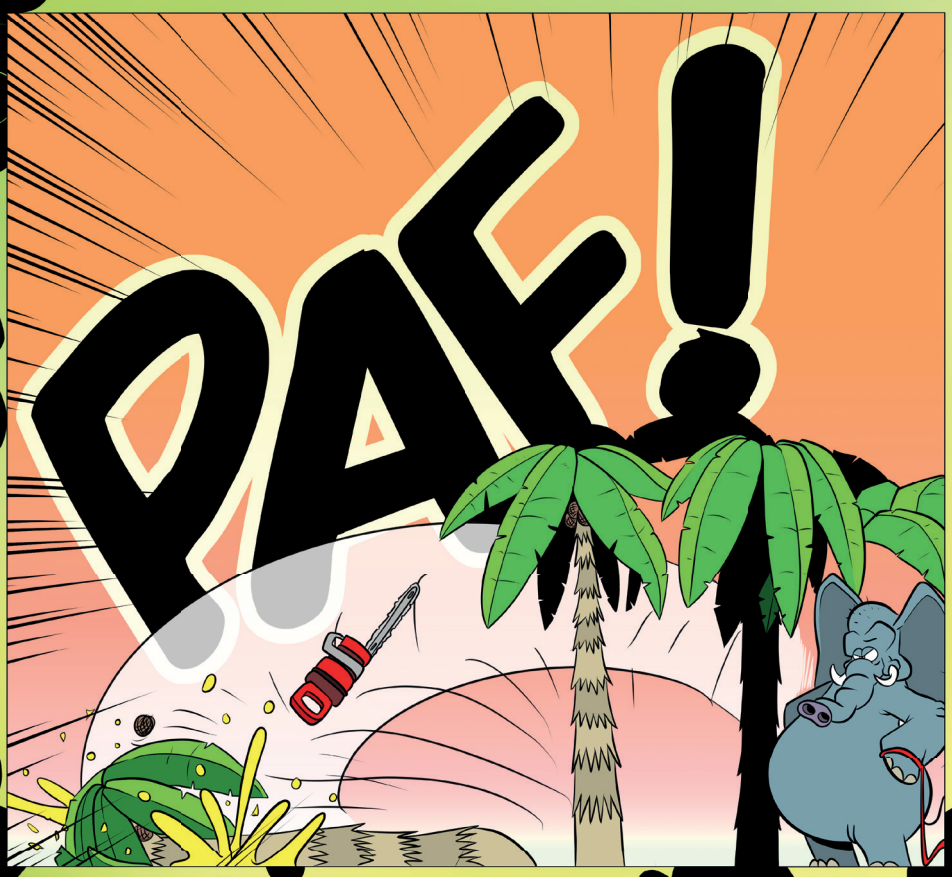
WE DIE FROM DEFORESTATION

DOCTOR RIP EXPLAINS

AFRICAN AND ASIAN ELEPHANTS KILL UP TO 600 PEOPLE EVERY YEAR!



THEY MOSTLY ATTACK THEIR VICTIMS WITH THEIR SHARP TUSKS OR BY TRAMPLING THEM.



IN INDIA, ELEPHANTS ARE RESPONSIBLE FOR ONE DEATH EVERY DAY, ON AVERAGE.

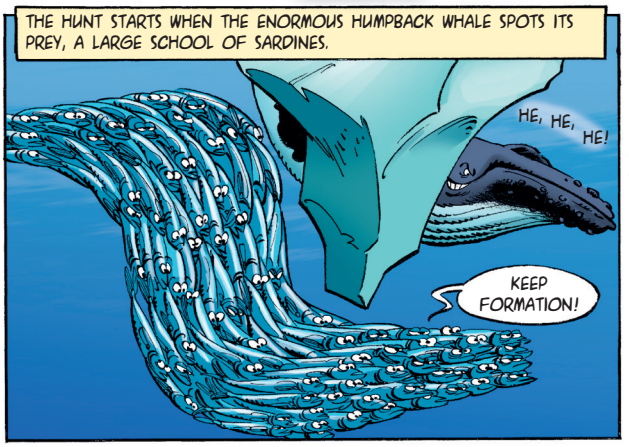
MOST ELEPHANT RELATED DEATHS ARE DUE TO DEFORESTATION.

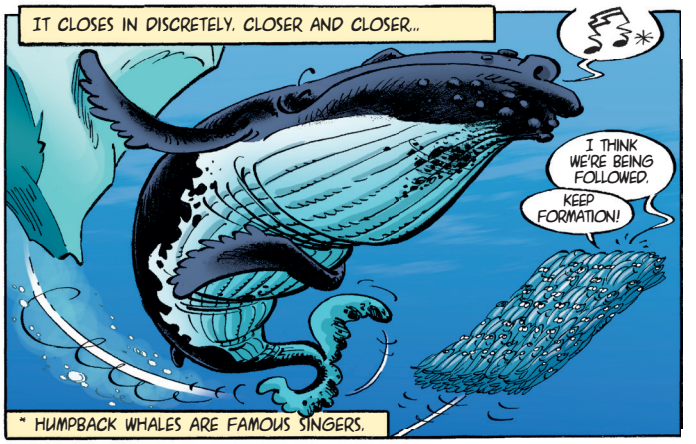
THE FAST PACE OF DEFORESTATION AND SHRINKING HABITAT RESULT IN MORE AND MORE HUMAN-ELEPHANT CONTACT.

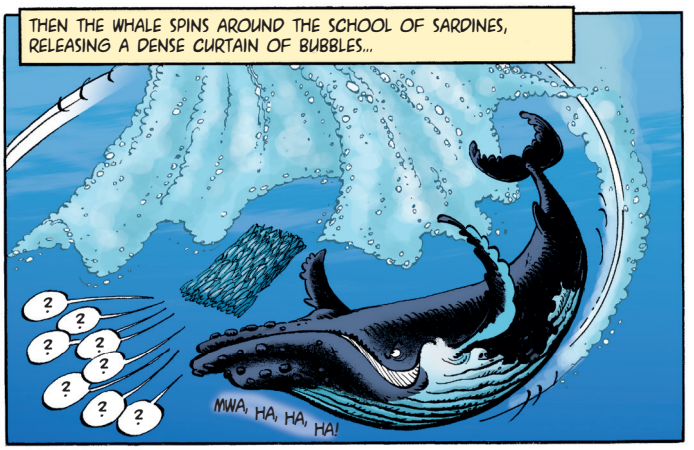
Created by Freg and Michel Quintin.
First published in Docteur RIP 3, by Éditions Michel Quintin, Canada.

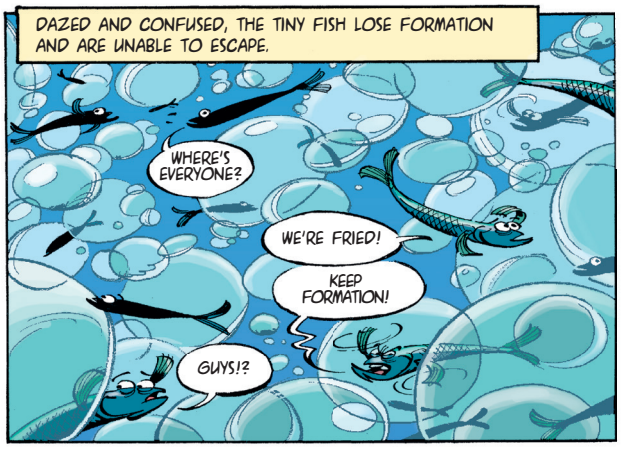
MARINE ANIMALS
THE COMIC

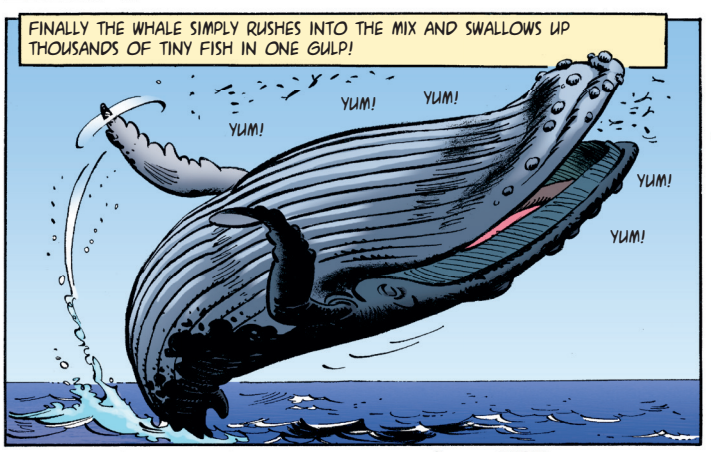
Curtain of bubbles

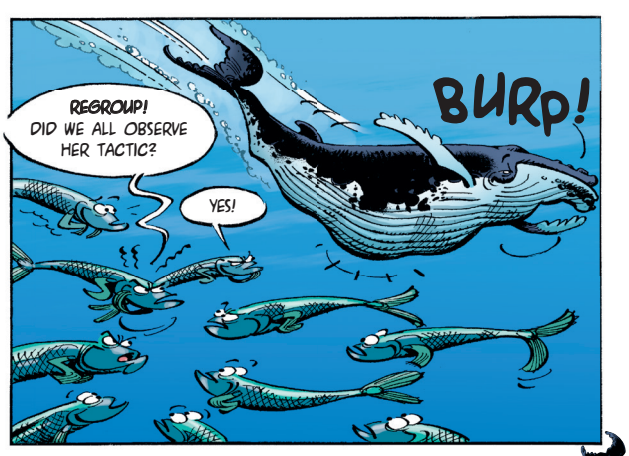


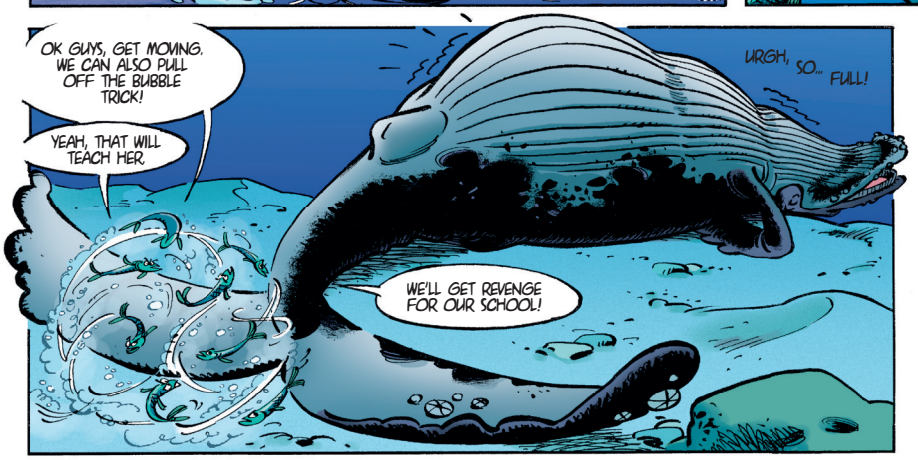






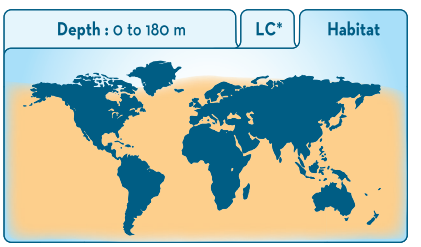






HUMPBACK WHALE
Megaptera novaeangliae

- **Size:** 15 metres
- **Diet:** Carnivorous
- **Interesting fact:** At birth the whale already measures between 4 to 5 metres, with a weight of one tonne. Like a normal baby, right!



Created by Christophe Cazenove & Jytéry.
First published in Les Animaux Marins en bande dessinée, by Bamboo Edition, France.