



# FASCINATING EACHTS

First published in the UK in 2024 by Studio Press, an imprint of Bonnier Books UK, 4th Floor, Victoria House, Bloomsbury Square, London WC1B 4DA Owned by Bonnier Books, Sveavägen 56, Stockholm, Sweden

bonnierbooks.co.uk

Copyright © 2024 Disney Enterprises, Inc. All rights reserved.

Pixar properties © Disney/Pixar. Mercury™; Model T™

© Just Play, LLC. Mr. Potato Head is a trademark of Hasbro used with permission. © Hasbro. All rights reserved. Based on the "Winnie the Pooh" works, by A. A. Milne and E. H. Shepard.

All rights reserved.

All rights reserved. No part of this publication may be reproduced or transmitted in any form or by any means, electronic, or mechanical, including photocopying, recording, or by any information storage and retrieval system, without permission in writing from the publisher.

13579108642

All rights reserved ISBN 978-1-80078-821-3

Written by Craig Jelley
Edited by Frankie Jones
Cover designed by Maddox Philpot
Interiors designed by Alessandro Susin
Production by Giulia Caparrelli



A CIP catalogue record for this book is available from the British Library





OVER 1,000 REAL-WORLD FACTS FOR CURIOUS MINDS





WELCOME TO DISNEY FASCINATING FACTS, A BUMPER BOOK OF THE MOST INCREDIBLE, ASTOUNDING AND, OFTEN, DOWNRIGHT UNUSUAL ITEMS OF INFORMATION THAT YOU'LL EVER LAY YOUR EYES ON.

It doesn't matter whether you're looking to fill your brain with bundles of trivia, pick up some amazing info to wow your friends with or just discover more about the fascinating world we live in, there's sure to be something for you among over 1,000 incredible facts!

Flick through these pages of tantalising trivia and you'll discover sections dedicated to everything from insects and biology to planets and Ancient Greece.

With so many facts spanning so many different subjects, you're bound to find something that piques your curiosity, no matter what mood you're in.

Have you ever wondered what the smell of freshly cut grass is? If you dive into the Nature section, you'll uncover the unexpected answer. Have you heard the one about the book that predicted an international disaster? No, it's not a joke, but a spooky coincidence that can be found in the Arts chapter. Maybe you've wondered whether or not Blackbeard was a real pirate and if so, who was he? The answers ye seek are buried in the pages devoted to History.

These tidbits are just a few tasters of the trivia you will traverse on your journey through this fact-packed book, so if you're sufficiently intrigued, what are you waiting for? Turn the page!



As well as being delicious, strawberries are one of the few fruits that grow their seeds on the outside – sometimes up to 200 of them. In fact, they're technically not called seeds, but something called an achene, which is an individual fruit that holds a seed.



The biggest flower in the world is the Rafflesia arnoldii. It can grow to over 1 metre wide. It doesn't have its own root system, so latches onto other plants to grow. Don't sniff this flower though – its smell has been likened to rotting meat. Ferns are some of the oldest plants on Earth. They've been around since before the Mesozoic Era, which was when dinosaurs took their first steps on the planet, over 360 million years ago.

Pitcher plants have jug-shaped leaves and produce a nectar that entices insects and other small creatures inside. The leaves of the pitcher plant close once an animal falls in, and chemicals called enzymes digest the creature so the plant can use the nutrients.



No plant grows
faster than
bamboo. A
Chinese bamboo
variety called
moso can grow
almost 1 metre
in a single day. It
doesn't waste its
energy growing
any wider, so it
can concentrate
on shooting
straight up.

Some animals only eat plants, but sometimes the plants bite back! The Venus fly trap has hinged leaves that look like a toothy mouth. If an insect touches the hairs inside the leaves, they snap shut so the insect can't escape. It can take the Venus fly trap up to five days to digest the trapped insect.



Whether you're looking at the creepy-crawlies beneath your feet, or the starry sky above you, you're surrounded by the amazing natural world. Read on to discover incredible trivia about everything from mosquitoes and polar bears to talking mushrooms and bright stars millions of kilometres away!

## NATURE: PLANTS

There are around 73,000 species of tree on Earth, and amazingly over 50 percent of them can only be found in a single country! If you want to see the most unique trees in one trip, Brazil, Colombia and Indonesia top the charts for most native trees.

Tulips were introduced to Europe in the 16th century from Turkey. In the 17th century, particularly in the Netherlands, the demand was so great that they were said to be more expensive than gold. However, the mania faded and left lots of people with a very expensive plant collection that they couldn't sell on.



Summer means giant sunflowers cropping up all over the place. But did you know that the 'flower' of a sunflower is pseudanthium, or flowerhead, and is actually made up of many small flowers?

The Wolffia family of plants, also known as duckweed or watermeal, grow on the top of water and include the smallest flowering plants. Wolffia can be grown from seed, but can also clone itself very quickly too. The fastest recorded clone took just under 30 hours to produce.

The oldest documented tree in the world is known as Methuselah, a Great Basin bristlecone pine that grows in the White Mountains of California, USA. It has lived for over 4,800 years.

The baobab tree, sometimes known as the 'tree of life', is found largely on the continents of Africa and Australia. They can be massive in height and circumference, with some species reaching up to 25 metres tall and others 25 metres around.



The tallest tree in the world is a coastal redwood in California, known as Hyperion.
Coastal redwoods can grow super tall, but Hyperion is the biggest of them all, measuring just over 116 metres.
Experts think it's somewhere between 600 and 800 years old.

Some fungi communicate via a system of underground threads called mycelium, which can connect them across several kilometres. If one of the fungi is being eaten, it will send a signal through the mycelium to warn others and allow them to disperse a repellent chemical.

Everybody loves the smell of freshly cut grass, but the smell is actually a distress call that the grass is giving off. When cut, the grass releases pheromones that some scientists believe is a call of help against the attack.

The jaboticaba tree, also known as the Brazilian grape tree, doesn't have fruit dangling from branches like apples and lemons. Instead, the fruit grows directly from the trunk of the tree, so it looks like it's covered in big juicy boils.

We all know that trees need sunlight and water to survive, but exactly how much water do they need? Some oak trees can drink up to 450 litres of water a day, but that's nothing compared to the giant sequoia, which will guzzle up to four times that.

You can tell the age of most trees when they're chopped down by counting the number of rings the trunk has, but it can also show how well the tree has grown each year. The ring will be thicker if it has had an abundance of resources, or thinner when there haven't been as many.



NATURE: PLANTS NATURE: PLANT

If you're lost in the woods, you may be able to use trees and moss to navigate your way home. In the northern hemisphere, the sun shines more from the south. so damp- and darkloving moss will form on the north side of tree bark. If you're in the southern hemisphere, the opposite is true, but either will give you a direction to work with.

Clusters of bananas are known as 'hands' when they grow on trees. You can probably see why – because they look like bunches of yellow fingers.

There's a place called the Alnwick Garden in the United Kingdom that has a poison garden, which is filled exclusively with over a hundred poisonous plants. It's so dangerous that you're only allowed to enter it with a tour guide.

Many plants protect themselves with deadly toxins, but the oleander is one of the most poisonous to humans. If eaten, the leaves of an oleander plant can cause problems with the heart, nerves and stomach, and can even be deadly.

Giving a bouquet of flowers is a lovely gesture, but they end up dying quite quickly, even when in water. Tulips actually grow by up to 2.5 centimetres a day after they've been chopped, though they will die eventually.

The United Kingdom has 'ancient woodlands', which are classified as forests that have had trees since the year 1600. One of the largest of these is Sherwood Forest, home of the fabled Robin Hood, where over a thousand trees are thought to be over a thousand years old.

The rarest orchid in the world is the critically endangered ghost orchid. It's native to Florida, the Bahamas and Cuba, has a pale white flower and absolutely no leaves. It gets all the energy it needs from the trees it wraps around. Only 2,000 ghost orchids are thought to exist.

There's a type of grass native to Africa that's known as elephant grass, and it can grow over four metres tall. It's so called because, at that height, it's tall enough to hide an elephant! However, elephants also eat the grass, ruining all their best hiding spots.



Scientists in Russia were able to grow a plant from seeds they found in a 32,000-year-old squirrel burrow. The seeds were buried about 38 metres below the tundras of the Siberia region and grew into relatives of the modern narrow-leafed campion.

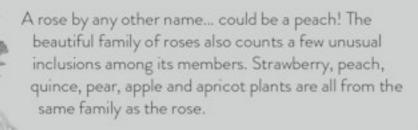
Some prehistoric fossils aren't housed in rock, but rather a substance called amber. This translucent orange substance is fossilised tree resin, which is a sticky sap that most trees make. Fossilised amber often contains prehistoric insects, such as mosquitoes and damselflies.

Most flowers hate the winter months, preferring to bloom in sunnier seasons, but the skunk cabbage has a clever trick. Unlike other flowers, it can produce heat itself, which melts away the snow and frost that threaten it.

The Welwitschia mirabilis plant is found in the northern Namib Desert, in southern Africa. It will only ever grow two leaves in its lifetime, but they can grow up to 6 metres long. However, the leaves split over time into multiple segments, making the plant appear to have more leaves.



## NATURE: PLANTS



Most plant roots stretch a few centimetres into the ground to collect sustenance. But there's a wild fig tree in South Africa that has roots sinking over 120 metres deep. They were discovered when they poked through an underground spot called Echo Cave.

Before trees shot up on Earth, the largest plant was an ancient fungus called a prototaxite. It's believed that this fungus could grow up to 8 metres tall and almost 1 metre wide, but didn't have caps like mushrooms we see today!

The oldest species of tree in the world is the ginkgo, sometimes known as ginkgo biloba. Fossils of the tree have been dated back almost 200 million years, which means it outlasted the dinosaurs.

As the majority of the Earth's oxygen comes from the sea, you'd expect there to be lots of plant life, but only around 14 percent of plant life exists underwater. This includes algae, kelp, plankton, seagrass and sargassum.

Oak trees are struck by lightning more than any other tree. Some believe it's because they're often the tallest trees around, while others point to a water-filled centre and deep roots that make them good conductors of electricity. Either way, steer clear of oaks in a storm!



About 70 percent of our planet's surface is ocean, but over 80 percent of it is unmapped. The ocean is home to more than 240,000 species, but scientists estimate a figure anywhere between 700,000 and 1.6 million!

The Challenger Deep, found in the Mariana Trench in the Pacific Ocean, is the deepest point in the world's ocean. Only 22 people have ever explored it, down to a depth of around 11,000 metres below sea level. No one has ever even reached the bottom.

The sea off the coast of North Carolina, in the United States, is nicknamed the 'Graveyard of the Atlantic' because so many ships have sunk there. The ocean floor there is estimated to be littered with the wreckage of more than 2,000 ships.

The ocean is a big place. Some parts of the ocean are warm. Some parts are cold. Ocean floors have mountains and valleys and even forests made of kelp.

Different parts of the ocean are home to many different creatures.

The water in a maelstrom – a powerful whirlpool in a sea or ocean – swirls into a central vortex, like bathwater down a drain. The world's strongest maelstrom is in the channel of Saltstraumen, in Norway, where whirlpools can reach up to 10 metres across and speeds of up to 40 km/h.

There is only one global ocean, but in world maps it is usually divided into five named oceans: the Pacific, the Atlantic, the Indian, the Arctic and the Southern.

Smaller areas of water where the land meets the water are often called seas, such as the Adriatic Sea, which is the water between Italy to the west and primarily Croatia and Albania to the east.



## NATURE: OCEANS

The Bermuda Triangle, made up of points in Bermuda, Puerto Rico and Florida, is part of the Atlantic Ocean where many aircraft and ships have disappeared without a trace. Experts say there is no evidence that vessels go missing in the Bermuda Triangle more often than in other places and that there is nothing mysterious about this region...



Colourful coral reefs, like the one Nemo and Marlin call home in Finding Nemo, grow best in shallow, sunlit ocean waters and are always teeming with plant and animal life.

Kelp is one of the fastest-growing life forms on the planet and can increase its size by up to 45 centimetres in a single day. Kelp forests often grow in rough and choppy water, which keeps the fresh nutrients flowing to the kelp.

The Great Barrier Reef, found off the coast of
Australia, is the largest coral reef in the world.
At more than 2,000 kilometres long, it is
the biggest living structure on Earth – so
big that you can see it from space! It's home
to sea turtles, stingrays, seahorses, and
hundreds of other animals.

Algae is one of the oldest living things on the planet and often covers coral reefs. It gets its energy from the sun, which it turns into oxygen. In fact, up to 70 percent of the oxygen in Earth's atmosphere is made by algae. More importantly, blue tangs like Dory from Finding Nemo eat algae and stop it from damaging the coral.

The water in the Dead Sea, found between Israel and Jordan, is ten times saltier than the oceans of the world, which makes it much more dense than normal water. If you swim in it, the water's density will automatically make you float.

There are two ice sheets –
massive masses of ice – left
over from Earth's last ice age.
One of them, the Antarctic
Ice Sheet, is 14 million
square kilometres, which
is the size of the USA and
Mexico combined.

The sea has canyons too! The Grand Canyon in the USA is over 1,800 metres deep at its deepest point, but underwater crevasses like the Zhemchug Canyon in the Bering Sea are even deeper, reaching a depth of 2,600 metres.

In 1997, scientists recorded an unusual sound, which they called 'the bloop', from a distance of over 3,200 kilometres away. It took them eight years to discover that it was an icequake – the sound of an iceberg cracking away from a glacier.

A tsunami is a series of giant waves that can catastrophically hit land, causing millions of pounds worth of damage, as well as injury and death. They're caused by seismic activity like earthquakes and can reach speeds of up to 800 km/h.

We might not ever see them, but the ocean produces waves over 200 metres tall. These 'internal waves' travel thousands of kilometres at a time, but they're all underwater. If they were on the surface, they'd cause wreckages on every coast.

The longest mountain range isn't the Andes, which is only the longest mountain range on land, but the underwater Mid-Ocean Ridge. It meanders around most of the oceans in the world and is over 64,000 kilometres long – just over seven times longer than the Andes!



The furthest-away point from land in the ocean is found in the Pacific Ocean, around 2,700 kilometres from the nearest land. It's called Point Nemo, but not after everyone's favourite clownfish! It's actually named after Captain Nemo in the novel Twenty Thousand Leagues Under the Sea by Jules Verne.

If all of the ice in the sea – glaciers, ice sheets and icebergs – melted, scientists believe the ocean would rise globally about 70 metres. That's enough to cover the majority of the world's land and even consume most of the Statue of Liberty.

The Pacific Ocean is the world's largest named ocean, and covers about 30 percent of the planet's surface. It is bordered by more than 50 different countries and is home to over 25,000 different islands.





In some parts of the ocean, the water can become denser thanks to something called hydrogen sulphide. The denser water can pool together to form underwater rivers, lakes and waterfalls.

The tallest underwater waterfall is called the Denmark Strait cataract, which has a descent of 3,200 metres. It's created by cold water falling over a cliff near dense areas of water and is more than three times the height of the biggest land-based waterfall, Angel Falls in Venezuela.

Have you ever wondered why water is clear, but the ocean is blue? The water in the ocean filters out colours from the light spectrum, like red, leaving behind just the blue hues. Blue light also goes much further than other lights, which is why it gets bluer as you go deeper... and it gets darker too!

The oceans are the biggest habitat in the world and over 98 percent of life calls the ocean home. That's incredible when you think of how many humans, animals and plants there are on the land around you!

There's enough gold in the ocean to give everybody on Earth 4 kilograms of the stuff! Unfortunately, the gold exists as tiny particles dissolved in the ocean itself, or in mineral veins that are too difficult to mine.

More than 80 percent of the ocean has never been mapped or visited by people. Because it's so dark after a certain depth and the pressure is too great when the water is deep, it makes it very hard to venture into new parts of the ocean. Who knows what else is lurking deep below the surface?



There is a series of currents in the ocean that can take a drop of water around every inch of the ocean. It's known as the global ocean conveyor belt and it changes direction based on the temperatures and salt content of the water. The journey of that drop of water, though, would take over one thousand years!

The ocean is estimated to be home to over one million volcanoes. Thankfully, most of them aren't active. However, underwater volcanic activity makes up over 80 percent of all volcano eruptions on the planet.

There are over 804,000 kilometres worth of network cables lying on the ocean floor, which connect the high-speed internet across continents. These cables carry over 95 percent of global communications. Think about that the next time you send an email!

Q

## NATURE: OCEANS

The pressure – the force that an object has to withstand – in the deepest waters is immense. In the Challenger Deep, the deepest known part of the ocean, the pressure is the equivalent of one hundred elephants standing on the head of a nail.



The Mariana Trench is the world's least visited place that we know about due to its extreme depth. Only ten more people have been to the Mariana Trench than the moon, despite needing a rocket to get to Earth's satellite.

If the pressure at extreme depths wasn't enough to worry about, there are also parts of the ocean called hydrothermal vents that are extremely hot too.

Temperatures around these areas can reach up to 400°C!

Coral has a symbiotic relationship with the algae that lives on it.

Algae lives in the tissue of coral and the coral in turn uses the algae for sustenance, which gives it colour. If the ocean's conditions turn for the worse, the algae departs, which leaves the coral bleached.

So many ships have sunk in the oceans across history, that some people believe that Earth's oceans have more artefacts in it than all of the museums in the world combined! However, it's much harder to visit these underwater 'museums'...

A shipment of rubber ducks was accidentally dropped into the Pacific Ocean in 1992, but oceanographers turned it into an opportunity. They asked people all over the world to get in touch when a rubber duck washed ashore so they could better understand the currents in the Pacific.

Hydrothermal vents, places where boiling, mineral-rich fluid squirts out of the sea floor – are teeming with creatures that don't need sunlight to survive, such as the yeti crab. They change chemicals into energy without the help of sunlight.

Wild horses were first domesticated over 6,000 years ago, and they have been part of countless expeditions since then. Between 1994 and 2014, an adventurer named Günter Wamser rode on horseback from the southernmost tip of South America to Alaska – a distance of more than 25,000 km.

The Xoloitzcuintli (shoh-lohits-KWINT-lee) is a mostly
hairless breed of dog,
just like Dante from
Coco! Xolo dogs have
been present
in Mexico for
thousands of
years. They were
sacred guides and
companions of
the Aztecs in
daily life.

Whale sharks such as Destiny from Finding Dory live in the warmer oceans of the world and can dive thousands of feet under the water. They are filter feeders – they swim with their mouths open, sucking in water filled with plankton, tiny fish and krill. Then they filter the water through their gills and eat whatever is left.

Some indigenous Mexicans revered jaguars and believed they had godlike abilities of power and courage, but they're now in danger of becoming extinct due to habitat loss and illegal hunting. The Mexican government and protection groups preserve land where the cats can live in peace.

Blue tangs like Dory from Finding Nemo are saltwater fish that live in warm coral reefs and rocky waters close to shore. They're from a family of fish called surgeonfish, so called because they all have at least one sharp blade next to their tail, which they use to protect themselves when threatened.

NATURE: ANIMALS NATURE: ANIMALS

Dory's friend Bailey from Finding
Dory is a beluga whale, which is a type
of mammal and not a fish. Toothed
whales like the beluga use sound
to find and measure the shapes of
things, which is called echolocation.

They make a clicking sound that bounces off objects, then

Under their skin, whales are covered from head to toe in blubber, which is a thick layer of fat that keeps warm-blooded whales at a comfortable temperature in the cold ocean. Fish don't need blubber because they're cold-blooded – it's already the same temperature as the water around them.

Clownfish like Nemo from Finding Nemo live in the tentacles of sea

echo to map out

anemones on coral reefs. Sea anemones are covered in poisonous tentacles, but clownfish are covered in a slime that protects them from being affected, keeping them safe from predators near the anemone.

Mr Ray from Finding Nemo is a spotted eagle ray. Rays swim by moving their whole bodies like a wave and some also flap their side pectoral fins like wings. One kind of ray, the roughtail stingray, can move really fast – up to 48 km/h.

The blue whale is the largest animal on the planet. They can be 30 metres long and weigh up to 199 tonnes. Blue whales have two blowholes and no teeth. They live all over the world. Unlike beluga whales and dolphins, they usually live alone.

California sea lions like Fluke and Rudder from Finding Dory normally cruise along at 17 km/h, but can swim in bursts of up to 40 km/h. That's pretty fast for an animal that can weigh 272 kilograms. They can also dive almost 300 metres under the water, holding their breath the whole time.

There's a mysterious whale that scientists have been tracking for over 30 years, that sings at a frequency unlike any other whale. The whale, known as 52 Blue, or just 52, calls out at a frequency of 52 hertz, which is higher than the closest species, the blue and fin whales, and sounds very odd to any whale that can hear it.

Sea anemone may be pretty...
but they're also dangerous. They
spend their whole lives attached
to something hard, waving their
tentacles around and waiting for a
fish to swim too close. When it does,
the sea anemone's tentacle
shoots out a poison dart,
stunning the
fish, and then
pulls the fish
into its mouth.

Sea stars, or starfish, live in every type of ocean habitat including tidal pools, rocky shores, sea grass, kelp beds and coral reefs. They belong to a family of spiny-skinned animals, or echinoderms, which also includes sea cucumbers, sea urchins and sand dollars. Starfish move very slowly, holding on with many tiny suction-cupped tube feet. They can regrow an arm if they lose one.

The darkest depths of the ocean are home to a very interesting animal called the anglerfish. This funny-looking fish dangles a small light above its head to attract curious fish towards it. When they get close, it swallows them up!

Octopuses have tiny cells under their skin that can change colour so they can match their surroundings. Octopuses are so good at this that they can even make their skin appear bumpy or spiky to look more like the material they're hiding against.

There are over 300 kinds of octopuses – just like Hank from Finding Dory – in the world's oceans. They all have eight tentacles... and three hearts! They swim by taking water in through their heads and squirting it out behind them. But those tentacles aren't just for show – octopuses use them to crawl across the ocean floor.

NATURE: ANIMALS NATURE: ANIMALS

Most fish have some sort of skeleton, but a shark doesn't have any bones at all.

Its whole skeleton is made of cartilage. This means sharks are very flexible and can twist themselves quickly to catch speedy prey.

Flying squirrels have flaps of skin that stretch from their front to rear paws. A flying squirrel can jump from a tall tree, then spread its legs wide to create air resistance as it falls. This force slows the squirrel down so that it glides instead of falling.

Earth's fastest land animal is the cheetah. It can run at bursts of 114 km/h, while the speediest creature in the sea is the sailfish. This super swimmer can reach speeds of 110 km/h.

Some animals can walk on water! Lizards called basilisks can run for about 4.6 metres before sinking underwater. Birds called western grebes also run on water during take-off. A combination of speed, webbed feet, and surface tension makes this feat possible.

An animal called the pistol shrimp has a built-in blaster. This little critter has one huge claw that it can snap with incredible force. The snap makes a blast of sound and heat strong enough to stun other animals. Syndrome from The Incredibles would be proud!

There are very few native land mammals in the Pacific Islands. In Fiji, the only native land mammals are bats. But what about Pua and Heihei from Moana?

Pigs and chickens were brought to the Pacific Islands thousands of years ago.

Some types of flea can jump up to 200 times the length of their body! They have a powerful springy protein that they squeeze when their legs fold, ready to jump. When they stop squeezing it, the protein creates explosive energy that makes the legs spring forward powerfully.

Lots of animals live in the harsh tundras of Earth. These include owls, foxes, wolves and reindeer.

Foxes and reindeer have thick fur that protects them from the cold.

Arctic wolves have fur on their paws that give them a better grip on the icy ground. Some animals, like huskies, even help people get around! These dogs are very strong and can pull sleds for a long time.

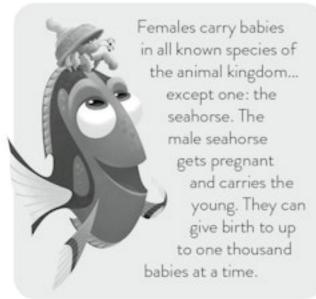
As well as reaching speeds of up to 96 km/h, the hummingbird is known for another fast feat. The tiniest species can flap their wings at a rate of 80 beats a second, or 4,800 times in one minute. And that's not all – their hearts can beat 1,200 times per minute too.

You might think that flamingos are pink, but those feathers are actually dyed. They eat a diet of blue-green algae and brine shrimp that contains a dye called canthaxanthin, which gives their feathers their pink colour.

Many animals have natural armour.
The pangolin, for instance, is covered with hard, overlapping scales, while crocodiles are covered with bony knobs. Crabs and many other creatures have exoskeletons – where they wear their skeletons on the outside to protect the soft organs inside.

What do you think the world's deadliest animal is? The surprising answer is the mosquito. This annoying insect kills over 700,000 people a year by spreading diseases, such as malaria and yellow fever, when they bite.

NATURE: ANIMALS NATURE: ANIMALS



Axolotis are amazing amphibians related to salamanders. They can regrow lost limbs and organs like their heart and parts of their brain. They also don't scar when healing these parts, which scientists think could help humans to master regeneration!

Humans use the manure from cows to fertilise crops and fields. It's very lucky we have a use for it, as a single cow can poo up to 15 times a day, creating over 13,000 kilograms of the stuff every year. Stinky!

The giraffe is the tallest land animal in the world and can reach up to 5.5 metres tall! Their superlong necks give them their height, but they can't bend them enough to reach the floor, which is why they eat leaves from trees.

The peregrine falcon is the fastest animal in the world... but only when it's diving. When swooping down to catch prey, gravity helps to speed its descent and it has been recorded at speeds of 390 km/h.

The noisy rooster protects its ear from its morning cock-a-doodle by tilting its head back when it crows. Doing this blocks the ear canal of the rooster, so it doesn't suffer any damage from the sound it makes, which can reach up to 100 decibels.

Possibly the most impressive animal is almost invisible to the naked eye. The tardigrade, sometimes known as a water bear, measures just half a millimetre, can survive without food for up to 30 years and can withstand temperatures below -272°C!

A polar bear is white, right? Wrong! The skin of a polar bear is actually black, while its fur is mostly translucent – or see-through. Polar bears appear white because of the light reflecting off the snow and ice around them.



Japanese macaques – a type of monkey – sometimes live in the snowy areas of

Japan's islands. They keep themselves warm by bathing in water heated by nearby volcanic activity and have been known to make and throw snowballs at each other!

Be wary of any suspicious koalas.
Along with humans and primates, they're the only species in the world to have fingerprints. In fact, koala fingerprints are very hard to distinguish from human ones!

Cuckoos aren't the greatest parents. Instead of building their own nests, these birds lay their eggs in the nest of other bird species, who will take care of the chick as if it were its own. This means the mother cuckoo doesn't have to waste time sitting on an egg!

Chameleons change colour using pigments under their transparent skin. The brain sends a message to make certain pigments bigger or smaller so they can blend into their surroundings.

They also use this to adapt to temperature, as they turn darker to absorb more heat, or lighter to cool down.



## NATURE: ENVIRONMENT AND SUSTAINABILITY

Scientists use GPS technology to track many wild animals, including sea turtles. Receivers are glued to the turtles' shells to collect location information wherever the turtles go. This information helps scientists understand the turtles' habits and needs, which helps in conservation efforts.

Some animals mark their territory by weeing or pooing, but the wombat takes this to another level. Because round poo can sometimes roll away from territory they're trying to mark, wombats have evolved to excrete cubes of poo!

The heaviest snake in the world is the green anaconda. The heaviest ever recorded was 227 kilograms and measured over a metre thick. It was over 8 metres long, but that isn't even the longest snake. One reticulated python was measured to be 10 metres long in the early 20th century!

Possums are the only marsupial found in North America and they have a clever defence mechanism against predators: they play dead. However, it's not entirely on purpose. The possum can get so scared that it stops in its tracks and falls over, sometimes for hours!

The bilby is a nocturnal marsupial found in Australia that's about the size of a rat and has long, pointy ears. It doesn't need to drink water because it gets all the liquid it needs from the food it eats.

The snake with the deadliest
venom is the inland taipan,
which can be found in
Australia. Its bite delivers
a mix of toxins that can
paralyse muscles, prevent
breathing and
cause muscles and
blood vessels to
stop working.

Humans can only regrow their teeth once, but crocodiles can regrow theirs over and over throughout their lifetime. Some crocodiles can grow a full set of teeth 50 times during their life!



Climate change means that the world is getting warmer.

The Earth experienced its eight hottest years in recorded history between 2015 and 2022, demonstrating the dangerous rise in global temperatures.

Internal combustion engines burn fuel which is not good for our air.



More and more cars are being manufactured without internal combustion engines. Their engines use electricity for fuel, instead of petrol, which creates fewer emissions and is better for the environment. Even better for the environment is using public or active transport!

Barrow Island in Australia holds the record for the fastest wind speed. On 10 April 1996, Cyclone Olivia battered the island with a 408 km/h blast – the highest non-tornado wind speed ever recorded on Earth.

If you live in a city, you might have to deal with light pollution. Light pollution means that the lights on Earth are too bright, which blocks out the light of the stars. A full moon can also add to light pollution. The light from the full moon is so bright that it can make it hard to see many stars.

Some rubbish stays in our ecosystem for hundreds of years. Most plastics can take up to one thousand years to completely degrade, while glass takes four times as long to deteriorate! Fortunately, glass can be recycled completely and indefinitely. Only some plastics can be recycled, and they can only be recycled a certain number of times.

## NATURE: ENVIRONMENT AND SUSTAINABILITY

When cows parp, they release methane, which is one of the gases causing our climate to warm. Each cow can release around 90 kilograms of methane a year!



When trees are first turned into paper, the resultant sheets can be recycled up to six times before the fibres become too unstable to stick together. Recycling paper can stop humans needing to cut down as many trees.

More than 70 percent of the emissions of carbon dioxide – a harmful greenhouse gas – come from just a small collection of countries.
China, the USA, Russia, Japan, India, Canada and the European Union are the largest emitters.

There are two massive manmade patches of rubbish floating in the ocean. The Great Pacific Garbage Patch is floating in the Pacific Ocean between the USA and Japan and consists of rubbish that isn't biodegradable – or won't deteriorate naturally – like plastic.

In 2016, Japanese scientists discovered bacteria, known as *Ideonella* sakaiensis, which has a unique diet. Rather than eating biological matter as most bacteria do, it digests a type of plastic! They believe these bacteria could help fight plastic pollution.

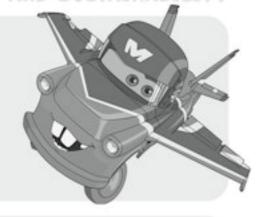
As sea rise the l

As a result of climate change, the sea levels around the world have risen by about 10 centimetres over the last 25 years. If this rate of rising

> levels continues, seas like the Mediterranean will rise another 1.2 metres by the year 2100, swallowing up coastal cities such as Venice.

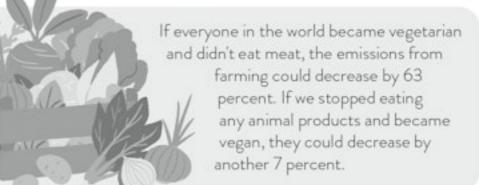
## NATURE: ENVIRONMENT AND SUSTAINABILITY

Setting off in 2015 and landing in 2016, the airplane Solar Impulse 2 flew around the world in 25 days powered by nothing but solar energy. It stored the required energy during a five-month span, and took off using the solar power, before gliding on huge wings to its next stop.



Microplastics are a type of pollutant made of plastic fragments that have broken down over time. They can cause harm to humans and to other creatures, particularly those that live in water, as they're now found in almost every sea and ocean on the planet.

There's a region of exceptionally depleted ozone in the stratosphere – which is a layer surrounding Earth that protects from the sun's harmful rays – over Antarctica, which appears every Spring. It was caused by man-made chemicals called CFCs, which were used in aerosols, but is on its way to healing thanks to CFCs being banned. Success!



It's estimated that by the year 2050, there will be more plastic in the world's oceans than fish. And when you consider that trillions of fish are swimming around, you can imagine how much plastic is making its way to our waters.

Around 30 percent of carbon dioxide made by humans is absorbed into the ocean, which makes the water more acidic and negatively affects marine life, such as coral, as well as their habitats.

## NATURE: THE NIGHT SKY



Energy from renewable sources, like solar and hydroelectric, now accounts for more of our global energy consumption than coal. In 2021, renewable sources generated 38 percent of the world's electricity, whereas coal only produced 36.5 percent.

The first effective solar cell, which is used to harness the power of the sun and turn it into a renewable energy source, was created in 1941 by Russell Ohl. But the process that makes it possible, called the photovoltaic effect, was first discovered in 1839.

Aluminium is the best material to use for food containers as you can recycle it limitlessly.
Recycling an aluminium can saves 90 percent of the energy it would take to mine a new load from the Earth.

Solar energy can be stored in... salt!
Sunlight is used to heat salt to over 130°C and turn it into a liquid. It's stored for up to a week and is then used to produce steam by heating water, just like fossil fuels do.



The tiny nation of Iceland was the first country in the world to produce almost all of its energy from renewable sources. It takes advantage of the geothermal properties of its land – the earth beneath Iceland is very hot – to achieve this.

Less than 1 percent of the Earth's water is drinkable – 97 percent is salt water in seas and oceans. The remaining fresh water (over 2 percent) is either part of glaciers, or too polluted to be fit for humans to drink.

As Earth spins on its axis, a star called Polaris – or the North Star – seems to sit still above the North Pole while all the other stars rotate around it. This makes Polaris easy to find from the Northern Hemisphere. You can look for the motionless star and use it to navigate.

If you're in the Southern Hemisphere, you can use a constellation called the Southern Cross to help you navigate. The long bar of the cross points to the South Celestial Pole. This is the point in the sky directly above the South Pole.

Do you know why day turns into night? It's because our planet is always spinning. Earth makes one full spin on its axis every 24 hours. The side facing the sun experiences day, while the side facing away from the sun is cast into night.

The earliest known drawn maps don't show Earth, they show the stars. One star map, drawn on the wall of a cave in France, dates from 14,500 BC. A star map drawn in another cave in Spain dates from 12,000 BC.

In the Southern
Hemisphere, the
aurora is called the
Southern Lights or
Aurora Australis. It can
be seen from parts of
New Zealand, Australia,
South America and
Antarctica. The farther
you get from the
Equator, the more likely
you are to see auroras,
which are collectively
called the Polar Lights.

The aurora seen from the northernmost parts of Earth is called the Northern Lights, also known as the Aurora Borealis. It's a phenomenon created when electrons from the sun hit the gases in our atmosphere and make sparks. These sparks can be a flash of colour and if there are a lot of these crashes when the sky is dark and clear, we see the aurora.

NATURE: THE NIGHT SKY NATURE: THE NIGHT SKY

We experience different seasons because Earth is tilted. The tilt of the Earth changes how high the sun gets in the sky – the higher the sun is, the warmer Earth gets. When the sun is highest, it's summer. When it's lowest, it's winter. In between, we have autumn and spring.



Giant groups of stars are called galaxies. Our sun is part of a spiral galaxy called the Milky Way, along with at least 100 billion other stars. It takes our sun more than 230 million years to orbit the centre of the galaxy. From Earth, what we can see of our galaxy looks like a milky band across the sky, which is where its name comes from.

A constellation is a group of stars that form a shape in the sky. Throughout history, people have used constellations to help them navigate. Have you heard of the Big Dipper? It is part of a constellation called Ursa Major, or 'Great Bear'. The two stars at the end of the dipper point directly at the North Star.

Our sun is the closest star to Earth and we make a full orbit around it once a year. The Sun is about 150 million kilometres away from us and 4.5 billion years old. At its centre, the Sun is around 15 million°C. Wow, that's hot!

Of the twenty brightest stars we can see with just our eyes, the most remote is called Deneb. It is part of the Cygnus constellation and is over 1,500 light-years away.



In many countries, the summer solstice is the first day of summer. It's the longest day of the year. The winter solstice is the shortest day of the year and marks the first day of winter in many places. When day and night are the same length, it's called an equinox. There are two of those each year – one in the autumn and one in the spring.

There are eight planets in our solar system. The closest planet to the Sun is Mercury, which travels around the Sun in only 88 days. The farthest planet is Neptune, which takes 165 years to orbit the Sun. Pluto is even further away but is a dwarf planet because it's so small!

Solar eclipses happen when the Moon gets between Earth and the Sun. There are two to five solar eclipses each year, with a total eclipse occurring once every 18 months. A total solar eclipse happens when the Sun, the Moon and Earth are in a straight line. If you're in the right place, the Sun and the sky will go dark during the day – but only for a few minutes.

A lunar eclipse happens when Earth gets in between the Sun and the Moon and casts its shadow on the Moon. We can still see the Moon during a total lunar eclipse because some light gets bent by Earth's atmosphere and hits the Moon, which makes it look red!

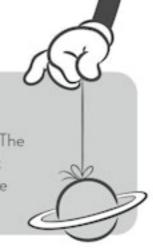
The different shapes of the Moon we see are called phases. When Earth is in between the Moon and the Sun, we can see a full Moon. When the Moon is in between the Sun and Earth, it's a new moon, which is invisible. In between these phases, it can be a crescent, gibbous or quarter moon.

Comets are big balls made mostly of ice that are too small to be planets, but still orbit stars like our sun. They have tails that we can see in the sky, which are caused by the Sun melting the ice and turning it into a gas.

Meteoroids
are rocks that float in space.
Sometimes these rocks travel through
our atmosphere, where they will often
burn up and turn into dust. When they
burn, we can see a streak of light and
they're known as meteors. Sometimes,
the rock doesn't burn up completely
and it makes it to the ground. The part
that lands is called a meteorite.

## NATURE: THE NIGHT SKY

You're not seeing the stars live! The stars you can see with the naked eye are so far away that it takes hundreds – or even thousands – of years to reach us. The bright light of a star you see in the night sky is the light that star gave off millennia ago, with the oldest stars we can see being around 4,000 years old.





Stars seem to appear white against the dark sky, but their actual colour depends on how hot they are. Blue stars burn at a heat of over 40,000°C and the coolest are red, but still reach temperatures of over 3,000°C.

It seems like it's impossible to count the number of stars when you look up at the night sky, but there are over 9,000 visible to the human eye. You won't be able to see them all at once, though, because the planet is facing away from half of them!

Not every light that you see in the sky is a star. Some of them are other planets in our solar system. You can see Mercury, Venus, Mars, Jupiter and Saturn at different times of the year, even without a telescope.



On very clear nights, you may be able to see part of the Milky Way galaxy that our sun is part of. It's a spiral-shaped galaxy and will look like clouds around the stars if you can spot it. These clouds are actually the dust and gases that surround the stars and planets.

Our moon isn't a sphere! It's shaped like a lemon, but the pointy bits face directly towards and away from us! Scientists think the Earth's gravity pulled it into this shape when the Moon was broken off from the planet hundreds of millions of years ago.



Scientists have dubbed the dung beetle the world's strongest creature. These insects can pull over a thousand times their own weight. That's like an average-sized adult pulling six fully loaded double-decker buses!



Insects called pond skaters live on the surface of still ponds and walk on water. Their bodies are designed to spread their weight over a large area, so there is never enough weight at any one point to break the water's surface tension. There are over 20 quadrillion ants in the world, more than any other creature. That means there are 2.5 million ants for every person living!

Some insects have natural venom inside them to ward off predators. One clever bug, the red postman butterfly, creates its own poisonous brew by munching on toxic plants. Sometimes a clever instinct is stronger than any venom!

One of the hardest working insects is the busy bee. Its wings beat incredibly fast – around 230 times a second, or 13,800 times a minute. A single hive of bees can produce about 27 kilograms of honey per year, which is enough to fill 50 jars.



The Hercules beetle is one of the largest insects in the world, with adult males reaching 19 centimetres in length. But the most impressive thing about it is its strength – it can lift up to 850 times its own body weight! No wonder they named it after the powerful Greek hero.

NATURE: INSECTS NATURE: INSECTS

When a bee find lots of pollen, she rushes back to her hive to tell the other bees by... dancing! She will perform a 'round dance' to let them know she's found a pollen-filled haven and a 'waggle dance' to tell them exactly how far away and in which direction it's in!



A water scorpion isn't actually a scorpion, as it has no sting in its tail. It lives mostly on land but crawls into ponds to hunt for food like small fish with its pincers. Its tail, rather than stinging prey, sticks out of the water and lets the water scorpion breathe underwater.

Insects have ears, but not like the ones you find on the heads of mammals. They often have hearing organs in strange places, like grasshoppers, which have them on their knees. That's like us having ears on our legs!

Insects generally
don't live for very
long, but they've been
on Earth longer
than humans.
The oldest fossil
containing an insect
dates back over 400
million years, which was
before even dinosaurs
appeared on the planet.

Flying ants appear in a short season in the summer. The ones you see flying around are new queens and males looking to mate. Once a new queen has mated, she chews off her wings and seeks a spot to start a new colony by laying her eggs!

Lots of insects have compound eyes, which are made of several visual receptors in one body part that looks like an eye. A dragonfly has a compound eye that contains around 30,000 different visual units.

Some spiders don't spin webs at all, but they have other clever ways to catch their prey.

Ground spiders shoot their webs at their prey to bind them and stop them moving, so they don't have to wait for their food to come to them.

The largest moth in the world lives in Queensland in Australia and has an average wingspan of around 27 centimetres, though the biggest measured 36 centimetres. This Hercules moth doesn't have a mouth to feed with, so it only lives for up to a week.

There are some insects that gardeners hate to see in their vegetable patch, but the ladybird is an exception. This colourful beetle eats aphids and other small insects that love to eat fruit and veg in gardens.

Spiders weave their webs from silk, which they create using an organ called a spinneret. The silk can be a thousand times thinner than a human hair, but scientists have worked out that it would be five times stronger than steel at human size! It would be weird if you looked like a chip, wouldn't it? Or any food you ate for that matter. But in the insect kingdom, there's a bug called a phylliidae, or leaf insect, which eats plants and also looks exactly like a leaf, so carnivorous predators won't think it's food!

Humans have just over 600 muscles, which allow them to do incredible things with their bodies. The humble caterpillar, however, has over 4,000. They use these muscles to push blood between body segments and move each one up and down for movement.



## NATURE: INSECTS

Butterflies don't taste with their mouth, or anything on their face for that matter they taste with their feet. This makes it easy for them to feed when they land on plants and other things abundant in nutrients that they need.



Scorpions give birth to live babies, unlike most insects and arachnids, which lay eggs. The baby scorpions live on their mother's back and live off a yolk sac until they're ready to strike out on their own, but some can live with their mum for up to two years.

Termites are not technically insects, but they're known for being wood-eating pests. It's no surprise when their colonies can grow so big - one termite queen was observed to pop out an egg every two seconds. The average queen can lay over 30,000 eggs in one day.

The heaviest bug in the world is the giant weta, which is found only in New Zealand. It looks a bit like a cricket, but can't jump or fly because it's so heavy. The biggest giant weta can weigh up to 70 grams, which is more than some mice.

Royalty in beehives works in mysterious ways. If a hive MNUH needs a queen bee, the nurse bees will pick one of the bee larvae and feed it a special substance called royal jelly, which turns the larva into a much bigger and more mature bee - the queen.

The bombardier beetle can ward off predators with a boiling hot chemical mixture. When threatened, it mixes these natural chemicals in its body and shoots them out at temperatures of around 100°C.

Ticks are found in grassy areas, usually in warmer seasons, and live off blood they suck from warm-blooded mammals. They can be as small as a seed when they're unfed, but can easily bloat to double or triple their size when they're full of delicious blood!

The biggest spider web ever recorded was spun by the Darwin's bark spider, which has the strongest silk of any spider. The web was over 2.8 metres square, but some silk lines measured over 24 metres!

Crickets can tell you how hot it is! A man called Amos Dolbear observed that if you count the number of cricket chirps you hear in 15 seconds and add 40, you'll get the air temperature in Fahrenheit. Amos came up with this method in 1897, so people have been using this method for over one hundred years.

> The larvae of glow worms are naturalborn killers. They inject toxins into the shells of snails or directly into slugs, which paralyse the poor creature and dissolve it into a liquid that the larvae suck up for nutrition.

Spiders tend to avoid water, but the water spider loves to submerge in ponds and streams using a clever method. It

captures air bubbles in its body hairs, then puts

them inside a silk web. When the web is full of oxygen, the spider carries it around as an air supply, which lasts

almost a full day.

You can find insects on every continent... but only just! There's only one species hardy enough to survive the frozen tundras of Antarctica - a wingless midge known as Belgica antarctica. Measuring up to just 6 millimetres, it's the largest solely land-based creature on Antarctica!

## NATURE: INSECTS

Cockroaches breathe through little holes in their bodies rather than through a mouth or nose as humans do. This means a cockroach can lose its head, but continue to breathe, move and live for a short time. However, it will eventually die as it can't eat any food.



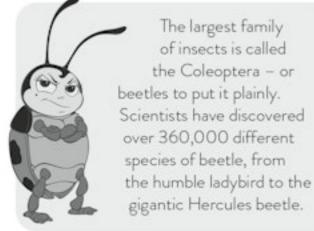


Some ants will give their life for their precious colony. One type of exploding ant will detonate itself if a predator is attacking the colony, which coats it in a toxic liquid that either kills the enemy or slows it down so other ants can get away.

The common housefly can't chew food, so when it finds something it wants to eat, it vomits a pool of enzymes that break the food down into a puddle. The housefly then sucks up the nutrient-rich liquid and moves on to the next yucky meal.



One species of assassin bug has an unpleasant way of scaring off predators. It first hunts ants, which it uses for food most of the time. However, if it isn't hungry, it will stack the body of the ant on its back as a means of camouflage.



Aphids are all born female, and even more surprisingly, they're all born pregnant. Newborn aphids are known as nymphs, and will give birth just ten days after being born themselves! The woodlouse, sometimes known as a pill bug, is usually grouped with insects, but is actually a crustacean, so it's more closely related to crabs and lobsters than ants and beetles. It can roll itself up into a ball when it feels threatened.

Not all insects are great for crops. The desert locust forms swarms of several thousand, and one locust can eat its body weight in a day – something humans only achieve in a handful of months! Locust swarms can cover up to 1,200 square kilometres and can contain between 40 and 80 million locusts per square kilometre. The stick insect is known for its excellent camouflage – it disguises itself as a stick on plants and trees to avoid getting eaten. However, if a predator does see through its disguise, the stick insect can shed a limb to escape, which it can then regrow.



Some people see insects as pests, but they're super helpful! Pollinators like bees and butterflies are responsible for helping the spread and growth of 35 percent of the food crops that humans eat, as well as keeping 75 percent of wild plants alive.

Millipedes are thought to have a thousand legs, but this is a myth. They can have as few as 34 legs, although one species, the 3-centimetre long Illacme plenipes, has up to 750. That's more legs than any other animal on the planet.

Here's an earthworm you wouldn't want to find in your garden! The giant Gippsland worm can only be found in Australia and usually measures up to a metre long, although, the largest examples have been recorded at triple that size.



# THE ARTS

From the written word and most infectious music to the finest fashion and showstopping performances, the world of the arts is brimming with facts to get your creative juices flowing. Read on to find out some of the most unbelievable facts in the artistic world and be ready for inspiration to strike!

Charles Dickens was afraid of trains and with good reason too!

In 1865, a train on which he was travelling dropped off a bridge.

Although he was unhurt and returned to the crash to pick up his latest manuscript, he never went on another train.

France has produced more Nobel Prize winners in the field of literature than any other country in the world. Sixteen French people have received the honour to date, including Sully Prudhomme, the first winner of the award, in 1901.

The famous poet Lord Byron wasn't allowed to keep a pet dog while he attended Cambridge University, so he got another pet – a bear. He is believed to have purchased the giant mammal from a fair in the early 19th century.

William Shakespeare wrote at least 38 plays and 150 poems during his 52 years. No one is sure of the exact number because some may have been lost, and he might have had help from other writers with others.

In 1898, Morgan Robertson published a book called *The Wreck of the Titan: Or, Futility*, about a ship called *Titan* that hits an iceberg in the North Atlantic Ocean and sinks, with a shortage of lifeboats for the people on board. Fourteen years later, the *Titanic* sunk in exactly the same manner! Spooky.

Mary Shelley started writing her famous novel Frankenstein – the story of monster creation and its possibly more monstrous creator – when she was just 18 years old. She had the idea after a nightmare she had on a stormy night in Switzerland.

## THE ARTS: LITERATURE



The first 'books' that combined words and pictures, and were read by children, were Japanese scrolls from as far back as the 12th century.

Samuel Pepys was an inhabitant of London in the 17th century who became famous for the diaries he wrote between 1660 and 1669. His personal accounts of the Great Fire of London and the Plague helped historians understand the events of the period.

The author of Le Petit Prince (The Little Prince), Antoine de Saint-Exupéry, became a pilot during the First World War and rejoined the French air force when war broke out again in 1939. However, he went missing in 1944 while out on a mission.

Beatrix Potter first wrote an illustrated story about 'four little rabbits' to cheer up a friend's child while he was recovering from a bout of scarlet fever. She sent him the story to help him feel better and continued to write

letters to him for many years until she published *The Tale of Peter Rabbit*.

The fastest-selling book in history is Harry Potter and the Deathly Hallows, which was the last book in the series. It sold over 8.3 million copies on its first day and went on to sell more than 30 times that amount across the world, in over 60 languages.

Quentin Blake, best known for being the illustrator on the books of Roald Dahl, has been the artist on over 300 different books. More recently he's illustrated books for David Walliams, such as Gangsta Granny.



The villain of J.M. Barrie's Peter Pan wasn't meant to be Captain Hook, it was meant to be Peter Pan himself! It started as a play before it was turned into a novel, but the stage crew needed more time to change sets, so a pirate scene was added in between scenes and Hook became the bad guy.

Aladdin in One Thousand and One Nights wasn't actually from the Middle East. The story begins with the words 'Aladdin was a little Chinese boy', although the collection of stories does have lots of influences from the Middle East.

The Very Hungry Caterpillar came from a piece of office equipment! Creator Eric Carle was playing around with a hole-punch and a stack of paper when he had the idea for the story about the insect with a big appetite.

A.A. Milne, the author of Winnie-the-Pooh, was taught by another famous author named H.G. Wells, who wrote The War of the Worlds. However, at that time Wells wasn't a published author and was teaching a maths class.

The monster in Frankenstein has no name – the doctor who made the monster is called Frankenstein! However, there is a part where author Mary Shelley has the monster refer to himself as 'Adam' when speaking to the doctor.

The only book printed in Latin to make the New York Times Best Seller list is Winnie-the-Pooh. The book was completely translated into the dead language and released as Winnie ille Pu!



## LEISURE: FOOD AND DRINK

In the summers of the Middle Ages, when people were waiting to harvest wheat to make bread, they often had to use old ingredients infected with ergot, which was a fungus that could make you hallucinate! In the 18th century, John Montagu, the Earl of Sandwich, used to ask his servants to put some meat in between two slices of bread so he could eat and carry on with his day – and the snack we now know as a sandwich has been named after him ever since!



Son

Some areas of Sardinia, Italy, produce a cheese that's illegal in most of the world. It's called casu martzu and the reason it's banned is because it uses live maggots as part of the cheesemaking process... and it is sold with the maggots still inside!

Have you ever heard the phrase 'best thing since sliced bread'? Well, sliced bread was invented in the 1920s, when the Chillicothe Baking Company of Missouri, USA had the bright idea to pre-slice their baked goods. So the next time someone uses that phrase, tell them they actually mean about 100 years ago!



An American company called Beneo launched a product called the Deo Perfume Candy in 2011, which is part sweet, part deodorant. When it's ingested, the sweet releases a rose fragrance through your skin!

McDonalds, the worldwide fast-food chain, once created a broccoli that tasted of bubblegum! It was made by their scientists in an attempt to get kids to eat healthier options, but it never made it to a wide release because testers thought it was too weird!

Figs that grow in the wild are sometimes not suitable for vegetarians. During their pollination process, wasps will burrow into the fruit of a fig tree and lay their eggs inside before dying in the fruit! The fig digests the wasp and eggs before they are ripe enough to be picked.

White chocolate should change its name, because it isn't really chocolate. It has no solid chocolate in it, but gets its name from the cocoa butter that's used to make it, along with sugar, milk and other ingredients. Still tasty though!

Every banana you see is a particular variant called the Cavendish, which was selected precisely because it doesn't have any seeds, so every single one you see is a clone not grown from a seed!

When you eat coriander, it can either taste like a herb or soap! It's all down to your genes, not because you're eating a bad batch of coriander. Some people have a taste receptor that can pick out a particular chemical in coriander that makes them taste of soap instead of a delicious herb!

A bottle of water will have an expiry date on it, but the water can never go out of date! The expiry date is actually for the plastic that the bottle is made from – after a while the chemicals in the plastic will start to degrade and enter the water.

The Caesar salad isn't named after the famous Ancient Roman, nor was it invented anywhere near Italy! It was made by a hotel owner named Caesar Cardini in Tijuana, Mexico when he wanted to feed friends but didn't have much to hand – he threw some bread and dressing on lettuce, and voilà!



# THE WORLD

Blaze a trail across the world and explore every continent on the planet to find out about people and places near and far. These fabulous facts will tell you all about the amazing lands on Earth, the events and people that forged the countries, and show you some of the customs that you might not see outside your front door.

## THE WORLD: ADVENTURE AND EXPLORATION

In the early 1920s, mountaineer George Mallory took part in three expeditions to Mount Everest. During an interview, he was asked why he wanted to climb the mountain. 'Because it's there,' he is said to have answered. To many people, this comment sums up the irresistible human urge to explore.

European explorers spent 300 years looking for a sea route between the Atlantic and Pacific Oceans through Canada. They had no idea if it was possible! By breaking sea ice, they were finally able to ram their way through, via a path called the Northwest Passage.

In AD 629, a Chinese
Buddhist monk named
Xuanzang went on a 17year journey to learn about
Indian Buddhism. He
returned with over 600
sacred texts and spent the
rest of his life studying and
translating them!

Some explorers are looking for natural treasures, such as gold and silver. In the 1500s, King Ferdinand of Spain sent out explorers called conquistadors. Their job was to find precious minerals in the Caribbean and Central America.

A Moroccan scholar named Ibn Battuta logged thirty years and 120,000 kilometres of exploration in the 14th century. Moving by sea, camel caravan and foot, he visited every Muslim nation in the world and many non-Muslim nations as well. When he finally returned home, he described his travels in a book called *The Rihla*, one of the great classics of exploration literature.

In 138 BC, a diplomat named Zhang Qian set out from Chang'an (now Xi'an), the capital of Han dynasty, China, in search of possible allies for a war. His travels spanned decades and revealed unknown regions and goods for trade. His adventures led to the creation of the Silk Road, a network of trade routes across the ancient world.

# THE WORLD: ADVENTURE AND EXPLORATION

Sarah Parcak is a modern explorer who uses satellite images to analyse Earth's geology and plant life to reveal forgotten sites. She has found thousands of ancient settlements and over a thousand lost Egyptian tombs working mostly from a computer lab.

Throughout history, animals have set sail on ocean adventures. Cats were kept on board to hunt rats that infested ships, while dogs were used for hunting when the ships came ashore. On one 20th-century Finnish vessel sailors owned pigs, rabbits, a dog and two cats!

In 1831, Charles Darwin joined the crew of the HMS Beagle. The ship stopped in the Galápagos Islands off the west coast of South America, where Darwin noticed some unusual traits in the local wildlife. His observations built on his grandfather's work and led to the theory of natural selection, which states that species evolve, changing in response to their surroundings.

It took Krystyna Chojnowska-Liskiewicz 401 days to travel around the world. She set sail from the Canary Islands in a 10-metre yacht, crossing the Atlantic and sailing through the Panama Canal. She crossed the Pacific and Indian Oceans and returned to the Canary Islands on 21 April 1978. She was the first woman to sail around the world alone.

Vikings explored Europe from about AD 790 to 1100. They relied on natural phenomena, such as the Sun and the stars, to find direction and watched for animals such as birds and whales to give them clues to their location. It's possible they used crystals called sunstones to find the Sun in overcast skies, thus helping them to find their way.

In 1519, Portuguese explorer Ferdinand Magellan organised an expedition to find a new route to India, travelling from east to west. It took three years, resulting in the first documented circumnavigation of the Earth.

## THE WORLD: ADVENTURE AND EXPLORATION

Cave exploration is called spelunking. Headlamps and spare batteries are very important equipment! Cavers bring harnesses and ropes if they plan to climb inside the cave. They wear helmets, gloves and sturdy boots to protect their heads, hands and feet.

Mount Everest is Earth's highest mountain from sea level. Its peak rises 8,848 metres into the air. Wind speeds of 280 km/h have been recorded at the summit and temperatures can drop as low as -60°C. As of 2023, over 6,300 adventurers have stood on the mountain's summit.

Earth's surface has many remote spots that remain unexplored. Northern Greenland, most of Antarctica and the deserts of Namibia in Africa are still unknown. People have never set foot on many mountaintops and the dense Amazon rainforest still has many untouched areas. There is plenty of exploring left to do on our planet.

When explorers came to new areas, they often brought diseases. Local people had never been exposed to these illnesses, so they had no natural immunity and no medicines to fight them. Between the years 1500 and 1900, an estimated 90 percent of North America's native population died from European diseases like smallpox, measles, bubonic plague, influenza and others.

In Micronesia, early explorers trained using a stick chart, which mapped where islands and currents were. Wayfinders used their eyes and ears and studied the ocean for years. They remembered what they learned and passed their knowledge on, often through song.



Over 90 percent of the sea floor is unexplored! Many incredible natural features and countless new plant and animal species are sure to be down there.

There's a place in Venezuela that has thunderstorms for up to 300 nights a year! It occurs where the Catatumbo River feeds into Lake Maracaibo, bringing the cold air from the mountains to meet the warm air of the Caribbean Sea.



A tribe called the Uros live on the surface of Lake Titicaca in Peru, on islands they created. They made the islands from the totora reeds that grow from the lake, and they also built their houses and boats from the same material!

In 1911, American explorer Hiram Bingham III went to Peru looking for a place called Vilcabamba. He found a forgotten city called Machu Picchu instead. The 'Lost City', as this mountaintop retreat is sometimes called, had sat empty for hundreds of years after its residents died or left. Today, this spectacular spot is Peru's most popular tourist attraction.

People in Peru farm salt! Over 600 families in the region of Sacred Valley own the Maras Salt Mines, which is a collection of saltwater pools connected by canals. When the sun shines, the pools dry out and the families harvest the salt left behind.

The Amazon River, the second biggest river in the world, begins in the Andes mountain range in Peru. It flows through the rainforest and is home to loads of weird and wonderful animals including the electric eel, pink river dolphin and piranhas!

The Mountain of Seven Colours, also known as Vinicunca, is a multicoloured mountain found in the Peruvian Andes. It was only discovered to contain so many colours in 2015 when the snow that had always covered it melted away.

South America consists of 12 sovereign states and 3 non-sovereign dependent territories, from Venezuela in the north to Chile on the southern tip. All but two of them have access to the sea – Paraguay and Bolivia are both landlocked, though the Amazon runs through both.

Brazil has been the largest producer of coffee beans for over 150 years!
The massive country harvested over 2.5 million tonnes of coffee in 2016 alone!



One of Bolivia's most famous hotspots is the Salar de Uyuni, known in English as the Uyuni Salt Flats. The land there is covered by a layer of salt and when it rains, the ground turns into a gigantic mirror as far as the eye can see!

There's another giant river in South America besides the Amazon – and it actually runs underneath it. Rio Hamza, an unofficial name, is an underground waterway that runs 4 kilometres below the surface of the Amazon and flows almost vertically in places.

In Paraguay, you don't have to ring a doorbell to announce your arrival at someone's home. Instead, you can just clap for a few seconds until somebody lets you inside.

Venezuela was named by an explorer called Amerigo Vespucci, who landed in the area at the end of the 15th century. He likened the stilt villages of the country to the waterlogged city of Venice and called it Veneziola, which means 'little Venice'. The Spanish translation is Venezuela.



## THE WORLD: SOUTH AMERICA

The Amazon rainforest is home to over 1.5 million indigenous people, spread across over 300 different ethnic groups. It's believed that the groups that live in just the Brazilian Amazon collectively speak over 250 different languages.



The capital of Brazil, Brasilia, was purposely built to be the capital city in the 1950s to move some of the country's functions to the centre of the huge land. It took just over three years to build it from the ground up and it was designed to look like a plane if viewed from above.

Christ the Redeemer is a massive 30-metre-tall landmark of Jesus Christ that sits atop a mountain in Rio de Janeiro. It looms more than 700 metres above the city and was originally built in France before being sent to Brazil to be assembled piece by piece, opening in 1931.

Colombia is home to a rainbow river, known as Caño Cristales, or the River of Five Colours. The water in the river is affected by the plant life inside it, which occasionally changes the flow to yellow, orange, blue or green.



There's a popular hobby in Colombia called tejo, which involves throwing metal discs into a clay pit. The twist is that the clay pit is filled with 'landmines' made from gunpowder that will explode when you hit them.

Brazil is so massive – it's the fifth largest country in the world by size – that it borders all but two of the other countries in South America. Only Chile and Ecuador are unable to call the nation a neighbour.

THE WORLD: SOUTH AMERICA

Ushuaia, Argentina, is the world's most southern city, only accessible by flight from mainland Argentina. It's a popular holiday destination for snowsports and hiking and you can often see hundreds of whales in migration around the island city.

By law, Colombian radio stations are required to play the country's national anthem on air twice a day! Tune your radio to any of Colombia's stations at 6 in either the morning or the evening and you'll hear its patriotic song from your speakers.



Pope Francis I, who began his papacy as leader of the Catholic Church in 2013, was born in Buenos Aires, Argentina in 1936. But before he became the first South American Pope, he worked as a bouncer at an Argentinian nightclub in his home city.

There's a small settlement of Welsh descendants in the middle of remote Argentina. It's called Y Wladfa and was created when people from Wales emigrated from their homeland in 1865 because they feared the language and culture of Wales was under threat from the English.

The national sport of
Argentina – home of
Maradona and Messi – isn't
football, but a game called
Pato. It's played on horseback
and involves throwing a hoopcovered ball around and trying
to get it in a small
netted basket.

Guyana's name means 'the land of many waterfalls'

- it has over 300 of the aquatic sites in one of the
smallest South American countries. It has the
highest single-drop waterfall in
the world, the Kaieteur Falls,
which falls non-stop from a
cliff 250 metres high!



Mexico has 31 states and about 129 million people. Mexico City, the nation's capital, has almost 9 million residents. The Mexican flag is green, white and red and has a central image that shows an eagle eating a snake while landing on the nopal cactus.

The Aztec civilisation flourished from 1300 to 1521. Aztecs were highly skilled engineers who built bridges, aqueducts and artificial islands called chinampas.

Nahuatl, the Aztec language, is spoken widely throughout Mexico today.

Kīlauea in Hawai'i is one of our planet's most extreme volcanoes. This volcano erupted continuously from 1983, finally ending on 4 September 2018, after 35 straight years of oozing lava.



Between May 1804 and September 1806, the Lewis and Clark Expedition became the first European expedition to cross what is now the western United States. A Lemhi Shoshone woman named Sacagawea travelled with the expedition most of the way, translating conversations when the expedition met Indiginous Americans. Her presence put people at ease, since war parties rarely included women.

Scholars refer to the historical and cultural region formed by Mexico and Central America as Mesoamerica. Many groups, tribes and kingdoms created important civilisations in this region and five major ones formed the foundation of modern Mexico. These are the Olmec, the Teotihuacan (tee-oh-tee-wah-KAHN), the Toltec, the Aztec and the Maya.



The people who live in Mexico have many origins.

Some are indigenous to the land, such as the Aztec and Maya people. Other Mexicans are descendants of Europeans, while some also have African or Asian roots. The word mestizo is used in Latin America to describe people of blended heritage.

Geologists call the area along the edges of the Pacific Ocean the Ring of Fire. Here, tectonic plates, or huge pieces of the Earth's crust, rub against one another. The movement can trigger tremors, major earthquakes and volcanic eruptions. Mexico, the USA and many other countries lie on the Ring of Fire.

The ancient Maya people of Mexico made incredible advances in mathematics, astronomy and architecture. They were one of the civilisations to develop the concept of zero and also discovered that Earth takes about 365 days to go around the sun. The Maya built complex cities and created beautiful works of art.

Many families in Mexico create ofrendas in their homes or at cemeteries during Dia de Muertos. An ofrenda consists of at least three levels. The top level represents heaven. The middle of the ofrenda stands for Earth. The lower level is Mictlan, meaning the 'Land of the Dead'.

Mammoth Cave in Kentucky, USA, is the world's longest cave system. About 680 kilometres of the system has been explored. But there may be another 960 kilometres still undiscovered! Today the cave is managed by the US National Park Service.

A waterfall is a place where water flows over one large vertical drop or a series of shorter steep drops. Waterfalls can be short and small, or they can be huge. Horseshoe Falls, which is part of the Niagara Falls series on the USA-Canada border, is 820 metres wide and its roaring waters plunge 51 metres!

Mexico has 9,330 kilometres of ocean coastline and some of the most beautiful beaches in the world. Mexicans and visitors from around the world flock to the beaches all year. Cancún, Los Cabos, Playa del Carmen and Acapulco are home to many popular beaches.

Martin Van Buren was the eighth president of the USA, but the first to be born an American! All the previous presidents had been Englishmen as they were born before America won independence in 1776. Popocatépetl (poh-poh-kah-TEH-peh-tuhl) and Iztaccihuatl (ee-stahk-SEE-wah-tuhl) are two famous active volcanoes located outside Mexico City. In the Nahuatl (nah-WAH-tuhl) language, Popocatépetl means 'smoking mountain' and Iztaccihuatl means 'white lady'.

Some Mexicans call the volcanoes El Popo and Izta for short.



Mexico has no official language, and at least 63 indigenous ones. Nahuatl is spoken by more than a million modern Mexicans. Many common English words derive from Nahuatl, including avocado, chocolate and coyote. Yucatec Maya, Mixtec and Zapotec are just a few of the other indigenous languages commonly spoken in Mexico.

The Mississippi River is the third longest in the world and the longest in America, measuring 3,765 kilometres! It would take a drop of water travelling from its source over 90 days to reach the end of its journey.

Baffin Island in Canada is home to the world's highest vertical drop. The steep fall is from a ledge on Thor Peak and you would fall 1,250 metres before hitting the floor. Most high mountains slope upwards so they don't have such high drops like this.

Mexicans celebrate the country's independence from Spain on 16 September. People throughout the country celebrate with music, parades and fireworks. The Grito, or cry for independence, is another part of the celebration, which commemorates a priest named Miguel Hidalgo y Costilla, who made the call for independence in 1810.



Dia de Muertos begins on 3
October and lasts through to
2 November. The important
celebration has its roots in
Aztec tradition and is one
of the most deeply revered
customs in Mexico. The
holiday honours ancestors
and loved ones who
have passed away.

The hottest place on Earth is Death Valley in the USA. The national park, which straddles the states of Nevada and California, set the record in 1913 when it hit a temperature of 56.6°C! It still regularly reaches over 48°C!

Teotihuacan, an ancient city near Mexico City, was built more than two thousand years ago and had running water, a sewer system, living quarters and courtyards. The Pyramid of the Sun and the Pyramid of the Moon, which were built to line up with the sunrises and sunsets at certain times of the year, are the largest structures in the city. But scientists still don't know who built it!



Each object on an ofrenda has a special meaning. Candles and marigold petals guide the spirits of loved ones to the altar. Copal incense is burned to purify the souls of the spirits. Pan de muerto and other favourite foods are offered as a way to honour loved ones.

The Maya people built Chichén Itzá (chee-CHEN-eet-ZAH) more than 1,000 years ago. The city includes a stone-lined field where the Maya played sports. The city's Pyramid of Kukulcan has broad steps that appear as if the serpent god Kukulcan is climbing the steps when shadows are cast over them at certain points. In Coco, Miguel sees similar steps and pyramids in the Land of the Dead!

The Statue of Liberty
in New York was
a present from
France. It was given
by the French as
a token of their
alliance with
Americans against
the British during
the American
Revolution.

Vatican City, home of the Catholic Church, is the smallest country in the world. It's home to just over 800 residents and is entirely landlocked by the city of Rome in Italy.

The New London Bridge was sold 136 years after it was built, when it was dismantled, shipped to the USA and reassembled over Lake Havasu. The Modern London Bridge that crosses the Thames now was opened in 1973.

In 1888, a team led by Norwegian explorer Fridtjof

Nansen made the first crossing of Greenland's frozen interior - on cross-country skis! The 450-kilometre journey took six weeks. The team faced bone-chilling cold, constant snowstorms and icy crevasses along the way. Amazingly, no one was seriously hurt on this ambitious adventure.

Stonehenge, in the county of Wiltshire in England, is one of the oldest man-made landmarks in the world. It dates back to around 3000 BC and is made of 4-metre-tall stones arranged in a circle, which seem to align with the sunrise on the longest day of the year!

The Ancient Greeks built statues and temples for their various gods so they had a place to worship them. The most famous of these is the Parthenon in Athens, which was built for the goddess of wisdom and war, Athena, who is also the protector of Greece's capital city.



One of the oldest parliaments in the world is in Iceland, where it has governed the people of the tiny nation for over a thousand years! The Althing was created in AD 930 and has remained the seat of power ever since.

The Tower of London in England is home to six ravens at any one time. There's a superstition that if any fewer than six are present then the monarchy in the country will fall!

As one of the oldest universities in the world, Oxford University in the UK is even older than the Aztec Empire! Oxford welcomed its first students in AD 1096, but the founding of the city of Tenochtitlán, the start of the Aztec Empire, wasn't until over 200 years later, in 1325.

The Leaning Tower of Pisa has never been straight! The Italian due to soft ground on one side, but the constructors continued adding floors until they were finished.



The abandoned Bolshoi Zayatsky island in Russia's White Sea is dotted with mysterious stone labyrinths. Archaeologists are not sure of the labyrinths' function, but it seems they had a spiritual

purpose. Different experts believe ancient peoples may have built them as doors to the underworld, traps for evil spirits, or altars for religious rituals. However, some experts think they may have just been designs for fishing equipment.

The principality of Monaco, a tiny country

surrounded by France, has more people in its military orchestra than it does in the actual military! There are 85 musicians in the orchestra, while only 82 people serve as a member of their armed forces.

There's a town in Germany called Nördlingen, which is built entirely within the crater left by a meteor impact. The crater is called the Nördlinger Ries and is the result of an impact over 14 million years ago!

The Czech Republic's, or Czechia's, capital city Prague has a street that's so narrow that people have gotten stuck in it. Vinárna Čertovka is only 50 centimetres wide and has traffic lights at each end to let people know when they can walk through it!

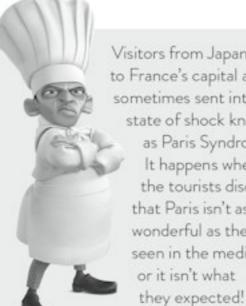
The Greek regions of Athens and Sparta were at war in the 5th century BC for 27 years, but a peace treaty wasn't signed between the two areas until AD 1996, when the modern mayors decided to do the official paperwork to end the conflict!

The recycling systems in Sweden are so effective that the country often runs out of rubbish to process. However, they burn waste that can't be recycled to create energy, so they have to import trash from Norway to keep their energy grid going!

The modern reconstruction of Shakespeare's Globe, which lies on the south bank of the Thames, is the only building in London that is allowed to have a thatched roof. after such roofs were blamed for the immense spread of the Great Fire of London in 1666.

Lots of towns and cities have multiple twins across the world, but Paris and Rome are exclusive twins, and they even have a shared motto: 'Only Paris is worthy of Rome; only Rome is worthy of Paris'. How romantic!

There's a prison island in Norway where inmates can freely roam around and do whatever they want. It sounds strange, but this approach to punishment has led to the lowest levels of re-offending criminals in the world.



Visitors from Japan to France's capital are sometimes sent into a state of shock known as Paris Syndrome. It happens when the tourists discover that Paris isn't as wonderful as they've seen in the media

Warsaw, the capital city of Poland, was burned to the ground in 1944, a year before World War II ended. But thanks to the detailed paintings of Bernardo Bellotto, the Polish people were able to rebuild its capital to its former glory almost exactly.

In 1963, a man in Turkey knocked down a wall in his house, which opened up a hole into a strange room. This unusual discovery got even weirder when he discovered this room led to a place called Derinkuyu, an ancient underground city that could date back to 1500 BC!

The British monarchy is the most famous in the world, but ten different European countries still have one! Andorra, Belgium, Lichtenstein, the Netherlands, Norway, Spain and Sweden all have one, but Denmark's is the oldest, dating back to the 10th century BC.

If you live in the United Kingdom, the King of England himself will send you a birthday card when you turn 100! He'll carry on sending you a birthday card every five years, or an anniversary card if you've been married for 65, 70 or 75 years!

La Sagrada Familia is a church being built in Barcelona, Spain based on a design by Antoni Gaudi, a famous Spanish artist. It started construction in 1882, but it's so complicated that it's still being constructed, almost 100 years after Gaudi died in 1926!

THE WORLD: ASIA THE WORLD: ASIA

Known as the golden age, China's

Tang dynasty was a time of peace
and prosperity. The Chinese traded
silk, spices, tea and other valuable
items with Central Asian and
some European countries along
the Silk Road. Literature,
especially poetry, also thrived.
Over 50,000 poems written
during this period survive to
the present.

Many Chinese dynasties lasted hundreds of years. Others did not last long at all, like the Qin Dynasty, which was only in power for 15 years. The filmmakers who worked on the Mulan movie were particularly inspired by the Han and Tang dynasties.

Shan Yu is a fictional character in Mulan, but threats of invasion in China's history were real. The Great Wall was originally built to prevent northern tribes from invading China. Workers used stone, brick, earth and wood to build the structure. Watchtowers and garrisons were built along the wall to help guard the border.

China is a country located on the continent of Asia. One of the world's oldest civilisations, the Chinese are responsible for many important inventions and discoveries. Today, over 1.4 billion people live in China. It has the largest population of any country in the world. The Four Great Ancient
Capitals of China are Beijing,
Nanjing, Luoyang and Xi'an.
Luoyang and Xi'an were
capitals during the Han and
Tang dynasties. There are
many ancient temples and
buildings still standing in
these cities.

The idea to build the Great Wall of China came from Qin Shi Huang, who was the first emperor of the Qin dynasty (221–206 BC). The size and length of the wall changed over the centuries, as dynasties extended, strengthened, and rebuilt the wall. The Great Wall that still stands today was mostly built during the Ming dynasty (1368–1644). It stretches for about 8,850 kilometres.

Starting in 1420, China's emperor lived and ruled in the Forbidden City. Located in Beijing, the palace was 'forbidden' to commoners. The Forbidden City was made up of 980 buildings where government officials lived and helped the emperor make important decisions.

Chinese New Year is celebrated on the first new moon of the lunar calendar. The holiday usually lands between 21 January and 20 February in the Gregorian calendar and families celebrate the occasion for many days. They wear red clothing, have family dinners and give red envelopes filled with money to children, as red is considered a lucky colour in China.

Southeast Asia consists of 11 countries: Brunei, Cambodia, Indonesia, Laos, Malaysia, Myanmar, the Philippines, Singapore, Thailand, Timor-Leste and Vietnam. The population of Southeast Asia is almost 700 million people and growing!

Filial piety is one teaching of a belief system called Confucianism. Confucius was a teacher who lived from 551 to 479 BC. Confucius believed that society worked like a family. Just as children obeyed and respected their elders, all people had to obey and respect the emperor. Even today, Confucianism has a strong influence on Chinese society.



China has over 30,000 unique species of animals and plants. Species that are endemic to China do not naturally live or grow anywhere else in the world.

The Qingming Festival is a holiday dedicated to remembering and honouring ancestors. The holiday, which takes place in early April, has been celebrated in China for over 2,500 years. On this day, families visit their ancestors' graves to clean them and present special offerings. They also light scented sticks called incense and burn joss paper, which represents money.

THE WORLD: ASIA THE WORLD: ASIA

The Southeast Asian islands are home to Brunei and Timor-Leste, as well as several archipelagos, or chains of islands, that make up Indonesia, the Philippines and Malaysia. Composed of over 17,000 islands, the Indonesian archipelago is the largest in the world. Beautiful beaches, vibrant coral reefs, and active volcanoes are key features of the islands.

The Minangkabau of Sumatra, Indonesia, is considered by many scholars to be the largest matrilineal society in the world. In their tradition, Minangkabau daughters inherit their families' homes through their mothers. In many cases, when a daughter marries, her husband moves in with her family.

The oldest city in the world that has been constantly inhabited is Damascus in Syria. The ancient dwelling, known as the Jasmine City, is the capital of the country and was first inhabited over 11,000 years ago.

Over 20 percent of Earth's animal, plant and marine species live in Southeast Asia. Indonesia, Malaysia and the Philippines contain so many varieties of species that they are classified as megadiverse!

The mainland of Southeast Asia is part of the larger Asian continent and consists of Cambodia, Laos, Myanmar, Thailand, Vietnam, Singapore and the peninsula portion of Malaysia. Here you'll see long mountain ranges that fan out into lowlands and flat areas called plateaus. You'll also marvel at breathtaking karst formations made from layers of rocks such as limestone.

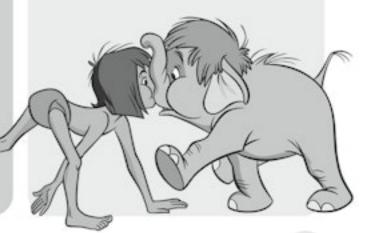
Cambodia's Angkor Wat is the world's largest temple complex and is one of the most visited religious sites in the world. Built by the Khmer Empire 1,000 years ago, the 'temple city' covers over 161 hectares and was carved from rock made of compacted sand, known as sandstone.

Your eyes aren't playing tricks on you. Rivers can flow backwards! At
Cambodia's Tonlé Sap, Southeast Asia's largest lake,
a special event occurs during the summer
months. The flow of water reverses
direction, moving away from the sea, filling
the Tonlé Sap with much-needed fish and
providing water for nearby crops.

Borobudur temple in Java, Indonesia, is considered the largest Buddhist temple in the world. A few hundred years older than Angkor Wat, the structure is shaped like a stepped pyramid and stands over 30 metres tall. Hundreds of bell-shaped stupas, or places of meditation, and Buddha statues can be found around the temple.

Most of Southeast Asia is close to Earth's equator, in the humid tropics region. The subtropics to the north and south have hot summers and mild winters, so Southeast Asia is blanketed in lush forests, deserts and snowy mountains. Mũi Né in Vietnam is famous for stunning desert dunes, and Puncak Jaya in Indonesia is so tall, it even snows there!

For over a thousand years from around 300 BC, India was the only known source of diamonds in the world. It wasn't until AD 1700 that more diamond deposits were found in places like Brazil in South America and South Africa.



## THE WORLD: ASIA

Did you know that languages from three major families are spoken in Southeast Asia? Languages like Lao and Thai are members of the Kra-Dai language family. They are tonal, which means they utilise the relative highness or lowness of sounds, called pitch, to completely change the meaning of a word. Austronesian languages are spoken on the islands, including the Philippines, Indonesia and Malaysia.

Austroasiatic languages like Vietnamese and Cambodia's Khmer are spoken on the mainland.

The tallest statue in the world is the Statue of Unity, which is found in India and measures 182 metres tall! It's almost twice as big as the Statue of Liberty and shows a local independence leader named Sardar Vallabhbhai Patel.

The loudest sound ever recorded was the eruption of the volcano Krakatoa in 1883. It exploded on the Indonesian island and damaged the ears of people up to 64 kilometres away. It was even heard 3,000 kilometres away in Mauritius.

During the dry season in Luang Prabang, Laos, locals come together to build bridges over rivers. Made from bamboo and rope alone, these useful bridges connect towns to schools, businesses and markets. Then, before the wet season, locals dismantle the bridges so they're not washed away by strong currents.



India has 300,000 mosques and over 3 million
Hindu temples. It's not surprising given the country
is the second most populated country in the world,
but that's a lot of worship! The holy city of Varanasi
has over 23,000 temples alone.

## THE WORLD: AFRICA

The continent of Africa is so huge that it's the only one in the world that has parts in each of the four hemispheres (north, south, east and west). For example, South Africa is in the southern and eastern hemispheres, while Morocco is in the northern and western ones.

When you think of the pyramids, you think of the ones in Egypt, right? Well, it's not even the country with the most pyramids in Africa. Egypt has 138 of the pointy triangles, but Sudan has discovered 255 of them!

The pyramids that are found in Egypt are all tombs of the country's ancient rulers, known as pharaohs – they're all basically monumental graves! Bodies of the pharaohs would be mummified and buried in a sarcophagus, which is a grand ornamental coffin.

The River Nile runs through 11 different countries, including Egypt, Eritrea and Sudan. It has two small rivers, known as tributaries, that flow into it – the White Nile, from Burundi and the Blue Nile from Ethiopia. The rivers meet in Sudan.

The Sahara Desert, which covers large parts of North Africa such as Egypt, Algeria and Chad, is the largest warm desert in the world. The only bigger deserts are the cold ones at the poles – the Antarctic and Arctic. The Sahara Desert is bigger than the USA!



Because there are over 50 countries in Africa, the languages spoken differ all over the continent. Arabic is the most common one, used in Egypt for example, but there are over 2,000 languages spoken across Africa.



Before settlers arrived in Africa and colonised the territory, the continent was divided into over 10,000 different states and settlements. Each one had its customs and possibly its own language, which is why Africa is so diverse, even within countries.

Africa is home to the world's oldest university: the University of al-Qarawiyyin. It was established in Fez, a city in Morocco around AD 859, which was 200 years before Europe's first university - the University of Bologna in Italy opened in AD 1088.

Some Tunisians believe that fish ward off evil spirits from homes, so they often hang pictures of fish in their house to keep their families safe. Others even put fish bones in the structure of their house, placed in the walls or floors.



The earliest known human fossils have been discovered on the continent of Africa, which has led scientists to believe that all humans originated from Africa. The human remains found in Africa date back to around 7 million years ago.

On the border between Zambia and Zimbabwe, you'll find the Victoria Falls, which is the largest waterfall in Africa. Its drop descends over 108 metres and stretches across over 1.6 kilometres along the border between the countries.

If you want to reach the highest point in Africa, you'll need to travel to Mount Kilimanjaro in Tanzania. It's one of the tallest mountains in

> the world, reaching up to 5,894 metres above sea level, and over a thousand people are

rescued attempting to climb the tricky trek every year.

The most populated African country is Nigeria, which is home to over 218 million people. It's a massive and diverse country that has over 500 different languages, such as Yoruba and Igbo.



Madagascar is an island country that lies off the Eastern coast of the African mainland. It's the fourth largest island in the world and the biggest belonging to Africa - it's over 1,600 kilometres long and 563 kilometres wide.

There's a tribe in the south of the continent called the San, who are said to be direct descendants of the first homo sapiens, or humans. They're the oldest known tribe in Africa and have lived in places like Namibia and South Africa for over 20,000 years!

Africa is home to the tallest, fastest and biggest land animals in the world - the giraffe, cheetah and African elephant - as well as very unexpected creatures. African penguins can be found on the South African coast, though they're an endangered species.

In Saudi Arabia they have dust devils - small whirlwinds that pick up dust and sand - although they know them by another name: djin. It's an Arabic word that means genie or devil, and is the reason why genies are typically shown without legs.

The world's first zoo could have been opened more than 5,500 years ago! Archaeologists discovered the skeletons of 112 animals, including elephants, hippos and wildcats, buried in an ancient structure at Hierakonpolis in Egypt.

Lebanon has a multicultural rule that states their three highest government positions must be held by people of different faiths. The president must be a Christian. the speaker of the Lebanese parliament must be a Sunni Muslim, while the prime minister should be a Shi'a Muslim.

There's a strip of land between Egypt and Sudan called Bir Tawil, which is perfectly good land that neither country wants to claim as their own. Instead, both of them lay claim to a nearby piece of land known as the Halaib Triangle, a much bigger part of land on the east coast of Africa between the two

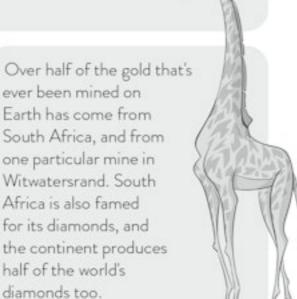


If you're born in Benin, you're more likely to be a twin than anywhere else in the world. The African country reports 27 twins out of every one thousand births, which is almost double the global average!

Napoleon's invasion of Egypt is the reason we know so much about the Ancient civilisation. He brought with him a commission of the sciences and arts, which documented everything they saw in the country.

When the grasslands of Namibia sprout up, they're often dotted with unexplained 'fairy circles' - bare patches of ground surrounded by tall grass. Scientists have studied over 1,500 kilometres of land where this happens and still don't know the reason behind them.

ever been mined on Earth has come from South Africa, and from one particular mine in Witwatersrand, South Africa is also famed for its diamonds, and the continent produces half of the world's





Ethiopia has its own calendar called the Ge'ez Calendar, which has 13 months compared to the 12 that we have in the Western calendar. They add five or six days into the 13th month, so their years are slightly longer and the calendar runs behind - in 2023, the Ge'ez Calendar was still in 2016!

Cowry shells were used as currency all along the West African coast and their influence can still be seen today. The currency of Ghana is cedi, which is a Ghanaian word that translates as cowry shell.

The first Black African to win an Olympic medal came from Ethiopia. Abebe Bikila won the marathon event in 1960 in Rome and he did it barefoot! He won the gold medal again four years later in Tokyo, but wore trainers that time.

Liberia is Africa's oldest surviving country, declaring itself independent in 1847, more than half a century before the next African country, South Africa, did the same thing. It was one of only two countries in Africa not to be colonised by Europeans, along with Ethiopia.

There's an island off the coast of Mozambique called... Mozambique. The island is a UNESCO World Heritage site - the only one in the country and home to the oldest European church in the Southern Hemisphere, which dates back to the 1500s.

Senegal's Pink Lake has a special algae in it that turns the water a cloudy shade of pink and also makes it very salty.

The lake can be up to 40

percent salt and the Senegalese people who mine the salt underwater cover themselves in shea butter to protect them from the harsh waters!

The Burj Khalifa, which is in the city of Dubai in the United Arab Emirates, is the tallest building in the world. It took the record when it was finished in 2009 and from top to bottom, it measures 829.8 metres tall!

The whole of the Middle East covers about the same amount of land as the USA – 9 million square kilometres to be precise. The largest country is Saudi Arabia and the smallest is Bahrain.

A writer from Syria in the 2nd century AD wrote a book called *True History*, which predicted many events of the future. Lucian of Samosata's adventure featured people going to the moon, encountering aliens and finding a new land in the West, which could have been North America!

Although Saudi Arabia has vast deserts full of sand, they still import tons of the stuff from Australia. Not to refill the desert, of course, but to use when building houses and other constructions, as the Saudi sand isn't fit for this purpose.

Three men from Yemen sued NASA in 1997 for trespassing on Mars with their Sojourner rover. The men had supposedly inherited the planet from their ancestors more than 3,000 years ago and had the paperwork to prove it!

The tiny gerbils we keep as pets were first found in Syria in 1797. The vegetable-munching creatures were first sent around the world in 1930 when a zoologist sent them to labs to be used in medical research.

In 2007, scientists who were digging up fossils in Saudi Arabia uncovered the remains of a huge fungus that would've reached up to 9 metres tall! The fungi died

out over 350 million years ago, but would've covered Saudi Arabia in a forest of mushroom-like trees.

Israel is the only Middle
Eastern country to appear
in the Eurovision Song
Contest! It normally hosts
entrants just from Europe,
but Israel has been a
competitor in the annual
singing competition
since 1973. Other nonEuropean countries to
have taken part include
Cyrpus and Australia.

There's a place called Baba
Gurgur in Iraq that has a phenomenon known as the Eternal Fire, where a flame has been blazing for thousands of years. It's caused by natural gas seeping out of rocks in the ground, but nobody knows what first set it alight.

The Dead Sea, which is on the border of Jordan is the lowest landbased elevation at 430 metres below sea level. It's more than nine times saltier than the sea, which means that life can barely survive in or around it, which is where it gets its name from.

Ancient Mesopotamia, which used to exist where the Middle East is now, was known as the land between two rivers – Tigris and Euphrates, which still run through the region today. They both begin in the Turkish mountains and flow through Iraq, Syria, Iran and Kuwait.

Kuwait is currently planning to build the world's tallest building: the Burj Mubarak Al-Kabir, which it expects to complete in 2048. It will be 1,001 metres high, which is a tribute to the popular story treasury One Thousand and One Nights.

## THE WORLD: CENTRAL AMERICA AND THE CARIBBEAN

The Caribbean is made up of over 700 different islands. Only around a hundred of these are inhabited, however, and 70 percent of Caribbean people live on the island of Cuba, or the island that contains Haiti and the Dominican Republic.



The shortest airport runway in the world is on the island of Saba, north of Saint Kitts and Nevis in the Caribbean. Pilots have just 400 metres in which to land and stop their plane when they make a landing here.

lan Fleming, the author of the James Bond novels, loved Jamaica so much that he bought land and built a house there called Goldeneye, after one of his stories. He wrote all of the James Bond books from his Caribbean property.



The Central American country of Costa Rica doesn't have an army. It hasn't had one since the military program ended in 1949 after a civil war. Instead, the money was used to fund education throughout the land.

Although they're thousands of kilometres away from Europe, the islands of Guadeloupe, Martinique and Saint Martin are all technically part of the European Union. They're part of the French overseas territory even though they're in the Caribbean, so you can spend Euros there.

There's a lake on the island of Dominica that is not fit for a swim as it's constantly boiling! The water sits on top of a fumarole – a vent to a volcano that shoots out boiling hot gases – which makes the water hot and bubbly all the time!



# THE WORLD: CENTRAL AMERICA AND THE CARIBBEAN



The Nicoya region in the
western part of Costa Rica
is one of five so-called
'blue zones' in the world.
Some think that people in
these blue zones are more
likely to reach 100 years
of age than anywhere
else in the world due to
their healthy lifestyles.

Like many countries in Central and South America, Nicaragua doesn't have any street names. It can be confusing to get around, but Nicaraguan people give directions based on landmarks like buildings rather than road names.

Lots of countries celebrate independence days, but Panama has two special occasions. They celebrate their independence from Spain, which was gained in 1821, and from Colombia, which happened in 1903.



Off the coast of Belize, there's a beautiful deep blue circle in the middle of the crystal clear waters. Known as the Great Blue Hole, it's a giant flooded sinkhole that has stalactites inside it, which suggests it was a cave when the sea level was lower.

The Panama Canal is a man-made crossing over the country of Panama that was built to speed up voyages across the sea by cutting through the narrow nation. Every ship that passes through must pay a toll, with the largest ships paying over \$450,000 to cross.

Jamaica is the only country in the world that has a flag combining green, gold and black and each colour has a different meaning. Black stands for difficulties in the country's past, green represents agriculture and gold signifies the year-round tropical sun!

THE WORLD: OCEANIA

The Pacific Islands are divided into three groups: Melanesia, which means 'black islands'; Micronesia, which means 'small islands'; and Polynesia, which means

'many islands'.

The suffix -nesia

comes from a

Greek word that
means 'island'.

We don't always know the exact dates and times for events from the past in the Pacific Islands, because history wasn't written down as it is now. Instead, tales were told out loud by storytellers like Gramma Tala in Moana. These storytellers passed the stories down to their children and their children's children, which is known as oral history.

There are giant head statues called mo'ai on Rapa Nui, which is also known as Easter Island. The mo'ai were carved hundreds of years ago and measure up to 10 metres high, even though large parts of the statue are buried underground.

Two of the last islands to be settled are in Polynesia: Hawai'i at the top and New Zealand at the bottom. The first settlers travelled over 3,000 kilometres by canoe to reach Hawai'i. Early Pacific settlers made an even longer trip to New Zealand, about 1,200 years ago. They named their home Aotearoa, which is still used today.

Two of the countries in Polynesia are Samoa and Tonga.
People have lived on these islands for more than 3,000 years. Samoa means 'sacred centre'.
Tonga is made up of 171 islands. Fewer than half of the islands in Tonga have people on them.

In Tonga and Samoa, a house is called a fale. Early Samoans and Tongans built fales using only what they had on the island – wood from poumuli trees held up a roof made of coconut leaves sewn together with rope made of – you guessed it – coconut! Fales are still made in this way today.



There is a monument in Tonga called
Ha'amonga 'a Maui, which translates to
'Burden of Maui'. The monument is made
of three huge stone slabs, each weighing
more than 30 tonnes! It is almost a
thousand years old and may have been
built to measure time using the sun.

The small island nation of Nauru is the only country in the world that doesn't have a proper capital city. There is a city called Yaren, where the country's parliament runs the country from, but they haven't named it their capital city in law!

Uluru is a giant monolith – a single massive stone that stands on its own – in the Northern Territory of Australia. It's the biggest monolith in the entire world and is the sandstone remnants of an ancient mountain range. Uluru is sacred to Pitjantjatjara, the Aboriginal people of the area, known as the Anangu.

There's a fence in Australia that stretches for 5,614 kilometres. It stretches from the town of Jimbour in the east of the country, to the Nullarbor Plain in the south and was put up to stop dingoes from reaching farmland in the southeast of the country.

The Marquesas Islands have many petroglyphs, which are drawings on rocks. There are drawings of turtles, canoes and people, but nobody has any idea how old they are.

Oceania is the smallest continent on the planet by land area, which is why it's named after the waters in between the many islands. It's also the least populated of the continents apart from Antarctica.



THE WORLD: OCEANIA THE WORLD: OCEAN

Oceania contains almost two-thirds of the planet's marsupials – mammals that carry their babies in pouches – such as koalas, wombats and kangaroos. The only other place you can find marsupials is South America. Oceania is the only place in the world where you can find a monotreme – a mammal that lays eggs. In fact, there are just two monotremes in the world: the duck-billed platypus and the echidna, and both call Oceania home.

Only six cities in the whole of Oceania have a population of over a million people. Five of these are in Australia, including Sydney, Melbourne and Brisbane, while Tamaki Makaurau/Auckland in New Zealand takes the other spot with a population of just over 1.6 million.



Indigenous rock art is commonly seen in Australia, as it's still practised by indigenous Aboriginal and Torres Strait Islander people to this day. However, the oldest art of this kind can be seen in the Arnhem Land, where the paintings on the rock date back over 60,000 years. The custodians of Arnhem Land include the Yolngu people, the Bininj people and the Maung people.

On the island of Vanuatu, residents take part in a ritual called gol, or nanggol, which involves them tying

vines to their ankles and jumping off stick towers to get as close to the ground as they can. It's thought that a good dive will lead to a good harvest, and many believe this is where bungee jumping originated from.

Māori are the tangata whenua, or indigenous inhabitants, of Aotearoa/ New Zealand, and arrived from Polynesia around 1,200 years ago. The first Europeans to sight the country didn't do so until 1642, and never actually set foot on land. It wasn't until the late 18th century that the Pākehā (European) settlement began.

The people of French Polynesia have mailboxes, but they collect their mail from a central post office. So why do they have them? They're used to deliver bread from local bakeries instead of letters!

New Zealand is home to the steepest residential street in the world, which has a slope of 38 degrees – just less than half of a right angle! It's called Baldwin Street and it's in the town of Ōtepoti/Dunedin, if you ever want to tackle the crazy climb!

Sydney Opera House is a landmark that opened in Sydney Harbour, Australia in 1973. The architect was a big fan of sailing, so he added the iconic white domes to the roof to make it look like boat sails were flying in the harbour.

French Polynesia is an archipelago – or a chain of islands – consisting of 121 different land masses spread across the ocean.

The most famous islands are Tahiti and Bora Bora, which are just two of the 75 islands that have people living on them.



There are three official languages in New Zealand. English and te reo Māori, are the only spoken ones though, as sign language is the third official language of the country.

New Zealand is a small country, with just over
5 million people living across the North and
South Islands, and on its smaller surrounding
islands. It's not surprising that this green
country has lots of sheep, so many in fact that
they outnumber humans 10-to-1!

## THE WORLD: THE POLES

The geographic North and South Poles are our planet's northernmost and southernmost spots. The North Pole is in the Arctic and the South Pole is in the Antarctic. To reach these areas by land, people must travel over vast and dangerous stretches of ice and snow. An expedition first reached the North Pole in either 1908 or 1909 (the date is disputed). The South Pole was reached in 1911.



Antarctica attracts many scientific explorers as there are 70 permanent research stations on the continent. Scientists visit these stations to study ice and snow, the effects of cold temperatures on various things, the movement of Earth's tectonic plates, meteorites and Antarctic wildlife. They also sample deep ice to read its gas content, which helps them measure climate change over time. Cool!

On average, the windiest place on Earth is Commonwealth Bay in Antarctica. Cold air rolls outward from the South Pole constantly, often reaching speeds over 240 km/h. The daily average is around 80 km/h.



The coldest temperature ever recorded in the Northern Hemisphere was -69.6°C in 1991 in a northern part of Russia. The average winter temperature in the Arctic Circle area is never in the positives, averaging between -6 and -12°C.

Few people live north of the Arctic Circle, but one group of people has lived in Arctic regions for thousands of years: the Sami. They live in parts of Norway, Sweden, Finland and Russia and traditionally make a living by fishing, or herding reindeer.

Because of its position at the top of the Earth, during the summer months, the Sun doesn't set at all, which earned it the nickname 'the land of the midnight sun'. However, the reverse is true in winter, when there are months at a time of darkness and twilight.

### THE WORLD: THE POLES

Antarctica has the biggest ice sheet in the world, and it covers 98 percent of the continent! Over 90 percent of the world's ice can be found in Antarctica too and scientists believe if climate change continues and all the ice there melts, the sea level will rise by about 60 metres.

The North Pole and much of the Arctic Circle are not considered a continent because there is no land beneath the ice, unlike in Antarctica. Instead, the whole area is covered in floating ice that measures up to 3 metres thick.



There are actually four different North Poles! There's the point at the northernmost part of the globe, and another that lies under the water. The final two are the magnetic and geomagnetic North Poles, which affect the way magnetism works in the world.

Nobody lives at the North Pole, so no one has ever needed to give it a time zone. As it lies at the top of the world and the lengths of days and nights don't make much sense compared to the rest of the world, visitors just go by whatever time zone they need to!

In 1937, the Soviet Union airdropped four scientists on ice floating at the North Pole so they could set up a temporary research station. When they went back to get them almost a year later, they had floated over 1,600 kilometres away to the Greenland Sea.

As if running a marathon isn't hard enough already, you can also take part in one at the North Pole, where temperatures can reach -29°C. The North Pole Marathon is held every year around a 4.22-kilometre loop through snow and ice.

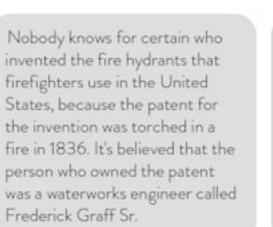




# FUN

Some facts don't fit so neatly into tidy categories, but we'll let you in on a little secret they're usually the most fun ones! These pages are filled with the funniest, most unbelievable, most incredible facts that will make you think, wonder, laugh and, most importantly, bring a smile to your face. What are you waiting for?

Buzz Aldrin was the second man on the moon, but he was destined to be there. Before she married his father, Buzz's mother was named Marion Moon! Guess who Buzz Lightyear from Toy Story is named after! That's right - Mr Aldrin himself.



The numbers we use today are called Arabic numerals and they were invented in India around the 6th century! They were introduced to Europe by Indian mathematicians to replace the previous systems, which were largely Roman numerals.



Frederick Graff Sr.

The word muscle comes from the Latin word musculus, which means 'little mouse', because the Romans thought muscles looked like a small rodent crawling around under your skin!

There are over 100 elements in the periodic table, ranging from Actinium to Zirconium, but one letter is missing. Not a single name of a periodic element contains the letter J!

You might have heard of a pride of lions, but what does the 'pride' bit mean? It's called a collective noun and most animals have a special term that refers to a group of them together. You might see a murder of crows sitting on a nearby branch, or a skulk of foxes wandering around. Murder and skulk are the collective nouns.

FUN

Leonardo da Vinci, the renowned inventor from the Renaissance period, may have been dyslexic and had trouble reading and writing. He also used 'mirror writing' – he wrote from the right-hand side of a page to the left in his notes!



In 1972, the ground was being excavated for a new building in York, England, when archaeologists discovered a fossilised poo – known as a coprolite – in the ground! It dated back to around AD 800, possibly belonged to a Viking and showed evidence of a meat and bread diet!

During World War II, a
Great Dane called Juliana
put out an explosive
device by weeing on it!
She was awarded the
Blue Cross medal for
bravery, all because she
needed to go to the loo!

Painkillers weren't used by dentists until 1772. Rather than having an anaesthetic to have a tooth removed or a filling, you would have people holding you down through the pain! It was only when nitrous oxide was discovered to be a pain reliever that trips to the dentist became bearable.

India has some local adjustments for the four seasons. Winter is from December to February, summer is from March to May, monsoon or rainy season is from June to September and post-monsoon period is October and November.

During the Cold War in the 1960s, the CIA had a program called Acoustic Kitty, which used cats as spies! The cats had microphones surgically inserted into them before they were sent away to listen in on the Russians!

The world's first speeding ticket was given to a man from Kent in England for driving at 8 miles per hour! It was on a road with a speed limit of just 2 miles per hour and the offender was chased for 5 miles by a policeman on a bicycle!



Charles Darwin, who came up with the theory of evolution, was partially inspired by a pirate captain called William Dampier, who made notes and sketched drawings of the unusual plants and animals he saw on his swashbuckling adventures.

The French
Government gives good
parents a medal! The Médaille
de l'Enfance et des Familles,
or the Child and Family
Medal, was started
in the 1920s to
encourage adults to
have more children,
as well as take care of
them better.

A French writer called Guy de Maupassant apparently hated the Eiffel Tower so much that he went and ate his lunch under it every day. It was the only place that he could sit and eat in Paris without having to look at the tower!

As only one of the Seven Wonders of the Ancient World – the Great Pyramid of Giza – is still standing, the New Seven Wonders of the World were chosen in the millennium year, 2000. The sites include the rocky ancient city of Petra in Jordan, Rome's Colosseum and India's magnificent Taj Mahal temple.

Valentine's Day was celebrated even in the early 19th century and involved swapping romantic cards and gifts. However, in England, some also sent a 'vinegar valentine', which had ugly cartoons and mean words for the receiver.

FUN

There's a bank in Italy called Credem,
which will accept cheese in
exchange for a money
loan! They keep
the cheese in a
special vault,
which is thought
to house up to
\$200 million
worth of cheese.

Before gargoyles were added to buildings purely as decoration, they served a function. When it rained, the water would run down the roof and through the gargoyle's mouth, stopping it from rolling down walls and causing damage.

Half of our week is named after Norse gods! Tuesday is named after Tiw, the Norse god of war, while Wednesday is named after Odin, who was sometimes called Woden. The last two gods to be honoured in our days are Thor and Frigg, who gave their names to Thursday and Friday.

The world's biggest search engine, Google, was originally called Backrub. They decided instead to name it after a googol – a huge number beginning with 1, followed by one hundred zeroes!



During World War II, the Catherine Palace in Russia was invaded and a room was stolen. It was called the Amber Room as it had walls covered in amber, but it was taken apart and hasn't been seen since!

The term piggy bank, for a pot where you put spare change – often shaped like a pig – comes from Medieval England. Pygg was a type of clay used to make pots and people often would throw coins into pygg jars. Eventually it was confused with the animal and now we have piggy banks!

If a gargoyle has a body, it isn't a gargoyle, but a grotesque. Gargoyles are normally just heads that have a water spout, but grotesques are full-body figures that are mostly for decoration and never have a spout through the mouth.

Some people are honoured by 'being given the key to a city', which is a ceremony that dates back to Medieval times. The gates to highly protected cities of the Middle Ages would be locked up at night, but one person would be given the key so they could leave and enter as they wished.

The most popular boy's name in the world is Muhammad (including alternative spellings like Mohammed). It's estimated that over 150 million people across the world have this name – that's over one in one hundred people!

Despite record-breaking temperatures, we're still actually in an ice age! It's the fifth one that Earth has had and we're currently in the interglacial period, which is when the world warms up, melting some of the ice that was around in the time of the woolly mammoth.

There's a statue in Prague of two men weeing while standing in a small pool, but it has a strange secret. Their wee is spelling out quotes from famous books – you can text a message to a special number and they'll start weeing out the words you've sent to them!

In 2008, a group of people in Iran tried to break the record for the world's biggest sandwich, which was packed with ostrich meat. They would've claimed the record; however, a couple of people began to eat the sandwich before it could be measured!



Switzerland is a famously neutral country and refuses to participate in most conflicts, so it was very surprising when they invaded Liechtenstein! 170 of their soldiers got lost on a training exercise and accidentally marched over a kilometre into the tiny European country.



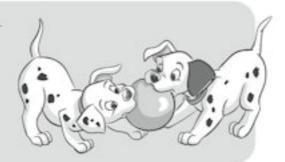
Many of the months of the year are named after gods and goddesses. Janus, the Roman god of beginnings, lends his name to January, May is named after Maia, the Greek goddess of the earth and June is derived from Juno, the Greek goddess queen.

Most countries have a national animal to represent their nation, but Scotland chose a mythical beast – the unicorn! It's been on their coat of arms since the 12th century and they even celebrate National Unicorn Day in Scotland on the 9 April.

When the world's biggest diamond was mined in South Africa, it needed to be sent to England. The Cullinan diamond was sent by steamboat under heavy guard, although that was just a decoy, as the real one was sent in a plain box via post!

Bluetooth, the method of connecting devices wirelessly, is named after a Danish king called Harald Gormsson, who had a rotten tooth that looked, unsurprisingly, blue! He was well-known in Scandinavia for uniting warring tribes around the 10th century.

It's illegal to own just one guinea pig or other 'social pets' - in Switzerland,
because they're happier when they
have a friend. You also have to take
a course on dog care before you can
bring a puppy home too.



Have you ever wondered what the Ms stand for in M&Ms? The initials are the names of the sweets' inventors – Forrest Mars and Bruce Murrie. Forrest had already created the Snickers bar, as well as Maltesers and was the owner of the whole Mars sweet empire.

The longest distance you can walk across the world without needing another form of transport is 22,500 kilometres! You'd need to start in a town called Magadan in Russia, walk through the Middle East, then all the way down to Cape Town in South Africa.

There was no word for the colour orange in the English language until the fruit was imported to the country in the 15th century. Before then, the shade was known as either yellow-red or yellow-saffron!



The human is the only animal in the world that has a chin! Chimps and other closely related species have jaws that slope backwards and even extinct humanoids like Neanderthals didn't have chins, but scientists can't work out why we evolved them!

There are over 200 languages that have been invented just for books, films and television. These include Klingon in Star Trek, Elvish in Lord of the Rings and Dothraki in Game of Thrones.

Did you know animals speak different languages in different countries too? Well not really, but the way different countries describe their sounds changes. For instance, cats meow in English, but in Estonia they go 'nau', while Albania pigs say 'hunk-hunk' instead of oink!



There are seven different types of twin. The most common are identical and fraternal – twins born at the same time but not identical – but the most interesting is the mirror image twin, which is where twins have opposite traits. If one is born left-handed, the other will be right-handed, for example!

A scientist created a computer program to analyse all of recorded history to find out what the most boring day since 1900 was. The answer? 11 April 1954, when absolutely no significant events occurred in the world!

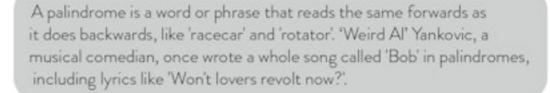
Spoken languages have difficult phrases called tongue-twisters, such as 'she sells sea shells by the sea shore', but there's something similar in sign languages, known as finger-fumblers.

Before you can drive a black cab around London, you need to take a test known as 'the knowledge', which has been around since the middle of the 19th century. Students need to know every street – 25,000 of them – and landmark – 100,000 – within 6 kilometres of Charing Cross in the centre of the city.



If you add up the numbers on opposite sides of any six-sided dice, they will always add up to seven. Six is on the opposite face to one, four and three are always separated by the other numbers, and two and five are the final pair.

Artist Anish Kapoor struck a deal with the creators of Vantablack – a material known as 'the blackest black' – that allowed only him to use it in his art. Another artist, Stuart Semple, developed a pigment he called 'the pinkest pink' and will sell it to anyone in the world, except Anish Kapoor!





The famous home store IKEA is an acronym, which is why it's always in capitals. It stands for Ingvar Kamprad Elmtaryd Agunnaryd, which is the name of the company's owner. More IKEA catalogues are printed every year than any other book too.

What's the difference between the acronyms BBC and NASA? Well, only one of them is an acronym! NASA is an acronym, because you say it as a single word rather than individual letters, even though it is made up of initials for the North American Space Agency. BBC is an initialism, because you say the individual letters.



The cartoonist Mort Walker coined new terms for lots of the things we see in comics. One of them is grawlix, which are the nonsense symbols like !@#? used when a character says something naughty or that the reader isn't meant to understand.

As of 2024, the tallest living man is from Turkey and is 2.51 metres tall. However, Sultan Kösen would be dwarfed by the tallest man ever. Robert Wadlow was 2.72 metres when he died in 1940.

The famous scientist Stephen Hawking once threw a party for time travellers ... but nobody showed up! He only published the time, date and place for the event after it had passed, so only people who could travel back in time would receive the invitation.



The filling of a Kit Kat bar is made from...

Kit Kats! It's strange but the damaged chocolate bars are sent back down the production line, mashed up and used to fill between the wafers and chocolate.

The shape of a Pringle has a name – it's called a hyperbolic paraboloid! The crisp was created in this shape because it meant they could be stacked more securely than a regular flat crisp.

In 17th-century Japan, the feudal lords would purposely install noisy floorboards. They were known as nightingale floors, and made a sound when they were stepped on so the lords knew if someone was creeping – and creaking – around their home.

When you shake a hand with someone you meet, you're actually doing it to show that you're not carrying a weapon! Historians believe that as most people were right-handed and would hold a sword in their right hand, they'd present an empty right hand as a show of peace.



Microsoft's headquarters in Redmond, Washington, in the United States, has the quietest room in the world, where the sound measures in negative decibels: -20.35 decibels to be precise. It's so silent that you can hear your heart beating and bones grinding when you move!



There was a laughing epidemic in Tanzania in 1962, which started in one of the country's schools.

The laughter spread between villages and eventually made 14 schools close down while the phenomenon passed! Be careful the next time you tell a joke...