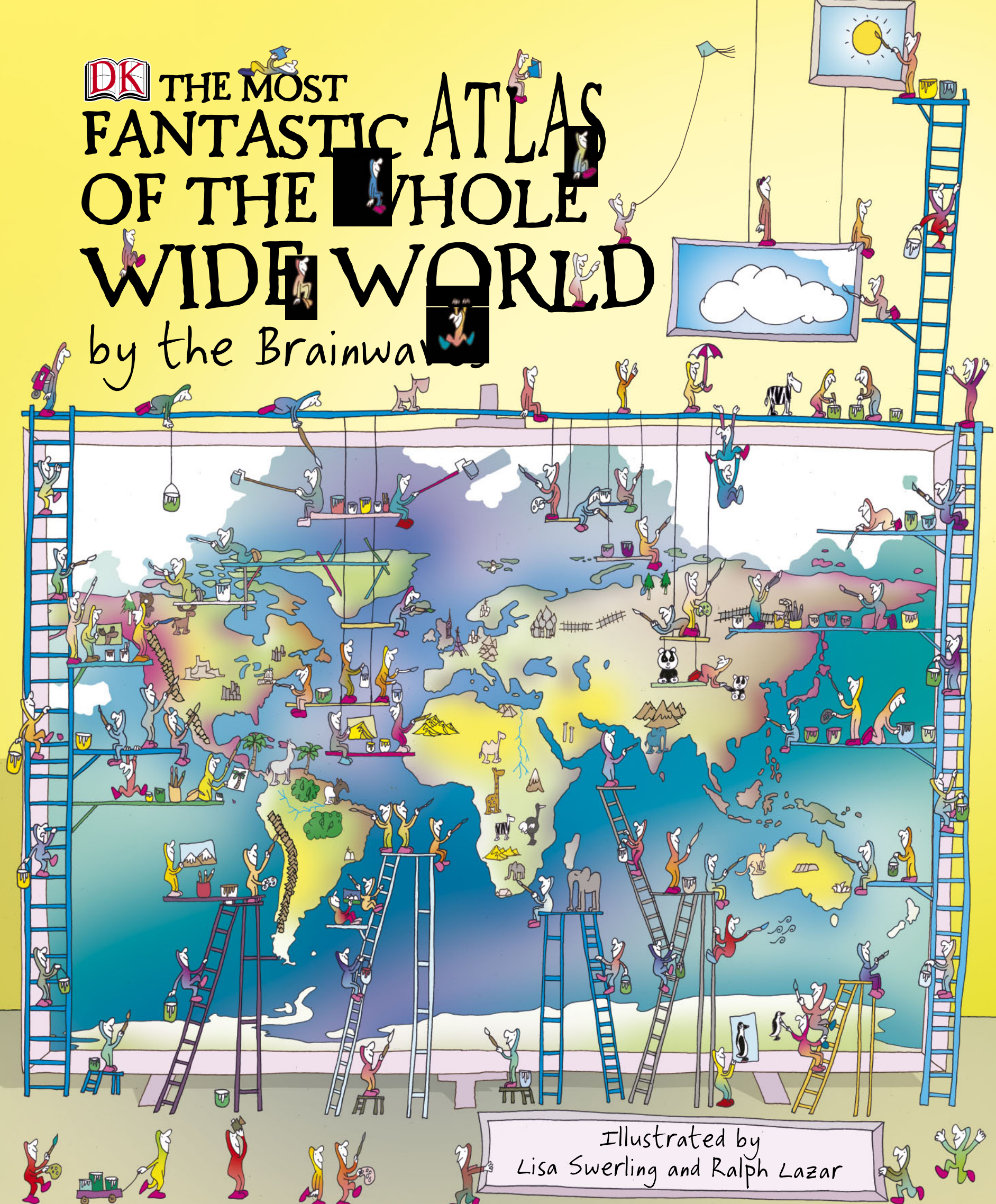




# THE MOST FANTASTIC ATLAS OF THE WHOLE WIDE WORLD

by the Brainwaves



Illustrated by  
Lisa Swerling and Ralph Lazar



NORTH AMERICA

ARCTIC OCEAN

EUROPE

ATLANTIC OCEAN

AFRICA

PACIFIC OCEAN

SOUTH AMERICA

ANTARCTICA





ASIA

INDIAN OCEAN

AUSTRALIA & OCEANIA

SOUTHERN OCEAN





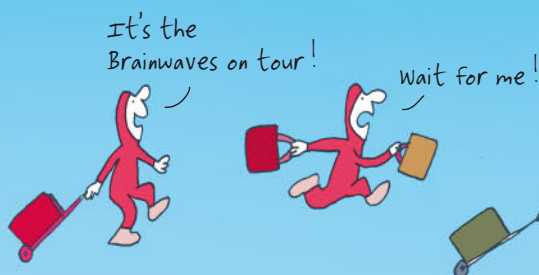
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Illustrated by Lisa Swerling and Ralph Lazar  
written by Simon Adams

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This way

That way



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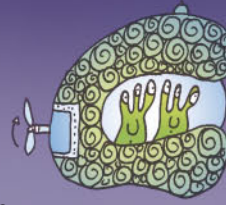


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# WORLD WE LIVE ON

Our home, Planet Earth, is one of eight planets that orbit the Sun—a vast, hot star that gives out light and heat and supports life on Earth. The Sun is just one of about 200 billion stars in a galaxy called the Milky Way, itself one of about 100 billion galaxies that make up the Universe. Many of these stars have planets that orbit around them, but, as far as we know, Earth is the only planet that supports life.



MARS  
126 million miles  
(203 million km)  
from the Sun

VENUS  
67 million miles  
(108 million km)  
from the Sun

EARTH  
91 million miles  
(147 million km)  
from the Sun

MERCURY  
29 million miles  
(46 million km)  
from the Sun

ASTEROID  
BELT

URANUS  
1.7 billion miles  
(3 billion km)  
from the Sun

SATURN  
0.84 billion miles  
(1.35 billion km)  
from the Sun

NEPTUNE  
2.8 billion miles  
(4.5 billion km)  
from the Sun

THE SUN

## The Solar System

The Earth is the third of eight spinning planets that, along with asteroids and comets, orbit the Sun, together making up the Solar System. The planets—all large balls of either rock (like Earth) or gas (like Saturn)—orbit the Sun due to its huge gravitational pull.

## Shape of Earth

Due to its spherical shape, Earth spins faster at the Equator—where the circumference has farther to travel around its axis—than at the Poles, causing the planet to bulge around its middle.

I didn't say You had a bulge round the middle!

## Imaginary lines

To help with navigation, cartographers draw imaginary lines around Earth. Lines of latitude run parallel to the Equator, and lines of longitude are drawn from Pole to Pole.

## Earth's spin

Earth spins counterclockwise on its axis—which runs from the North to the South Pole at an angle of 23.5° to the Sun—every 24 hours, giving us day and night.

North Pole  
23.5° angle between Earth's poles and its axis

Earth's axis  
South Pole

It's all spin.

You can't beat the system!

## 21 March

It is spring in the north and fall in the south. Day and night are of equal length everywhere.

## 21 December

It is winter in the north and summer in the south, creating the shortest day in the north and the longest in the south.

## 21 June

It is summer in the north and winter in the south, creating the longest day in the north and the shortest in the south.

## 21 September

It is fall in the north and spring in the south. Day and night are of equal length everywhere.

## The four seasons

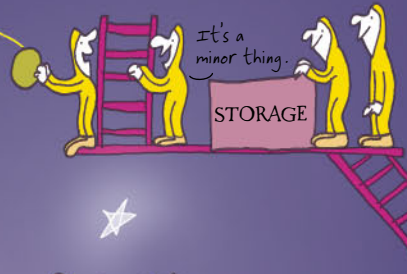
Earth travels round the Sun once every 365.242 days (a year). As it travels it spins on its axis, causing each place on Earth to lean nearer and then farther away from the Sun over the course of a year. This gives most of the planet four distinct seasons each year with varying amounts of sunlight and darkness (daytime and nighttime).

It's seasonal work.

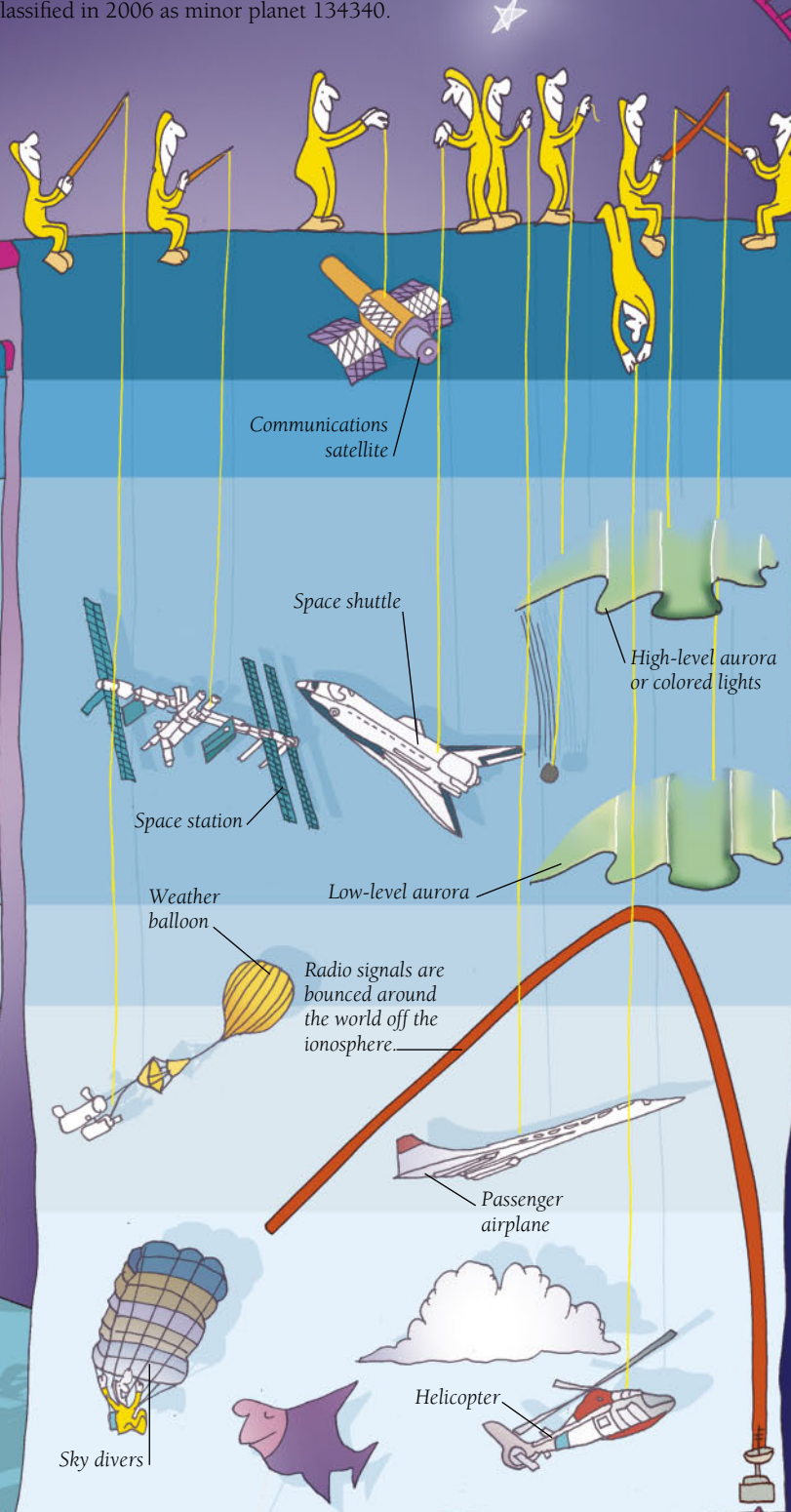
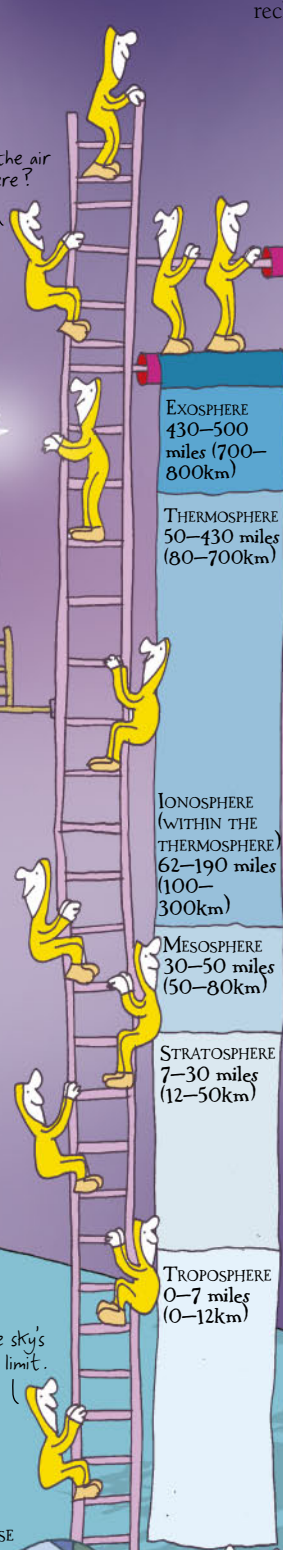


## Pluto

Discovered in 1930, Pluto was initially categorized as the ninth planet in the Solar System. But its small size and irregular orbit round the Sun caused many astronomers to doubt its status as a planet, and it was reclassified in 2006 as minor planet 134340.

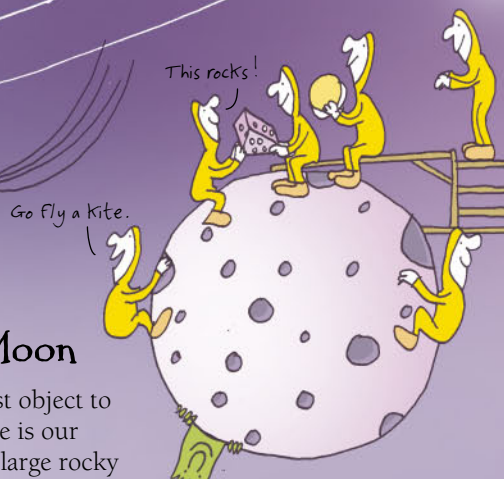


**JUPITER**  
460 million miles  
(741 million km)  
from the Sun



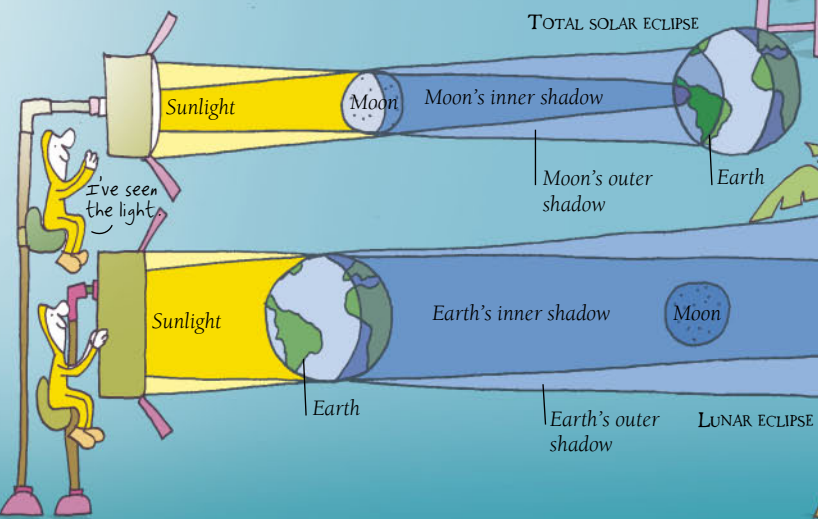
## The Moon

The closest object to us in space is our moon—a large rocky ball with a diameter one-quarter that of Earth. The Moon orbits Earth every 29.53 days—a lunar month. It has no light of its own but “shines” by reflecting the Sun’s light.



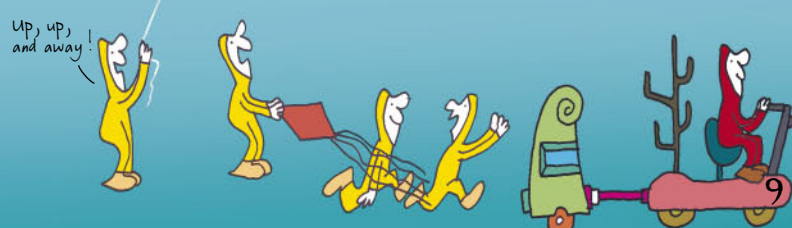
## Eclipses

Occasionally the Moon’s orbit takes it directly between the Sun and Earth, preventing the Sun’s light from reaching Earth. This is a solar eclipse. A lunar eclipse occurs when the Moon passes into Earth’s shadow.



## Earth's atmosphere

Held in place by gravity, the atmosphere is a layer of water vapor, fine dust, and gases, including nitrogen and oxygen, that encases Earth. The atmosphere extends for about 500 miles (800km) until it simply fades into space.



# NORTH AMERICA

The world's third largest continent after Asia and Africa, North America contains the ice-covered island of Greenland to the north and the tropical Caribbean Islands to the south, as well as the mainland of North and Central America. The continent's wide-ranging landscape varies from frozen tundra in the north, through high mountain chains and flat, fertile plains, to hot, dry deserts, and lush rain forest in the south.

Well hello there.

## The Rockies

The Rocky Mountains stretch down the west coast of North America, from Alaska in the north to New Mexico in the south. The snow-capped mountains are popular with skiers and mountaineers and home to an array of wildlife, including elk, moose, and grizzly bears.

Does anyone have a thimble?

## The Great Plains

Between the Rocky Mountains to the west and the Missouri and Mississippi rivers to the east, lie the Great Plains or Prairies—the breadbasket of the continent. Crops including wheat, flax, and cotton are grown here, and the area supports vast herds of cattle and flocks of sheep.

What do you think?

It's a little patchy in places.

Shouldn't you be in a barrel?

## The Great Lakes

A series of five freshwater lakes that form the natural boundary between the U.S. and Canada, the Great Lakes are the largest body of fresh water in the world and include the immense Niagara Falls. The lakes are drained by the St. Lawrence River, which flows northeast into the Atlantic Ocean.

We need a quilt.

I'm cold.

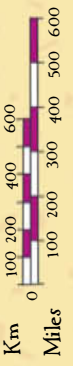
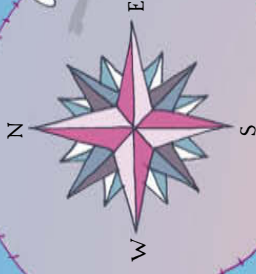
This is great!

I'm the fall guy.

We're sewing!

Cool!

So what?





## Mississippi-Missouri

The Mississippi, with the Missouri, is the longest river system in North America, and the fourth longest in the world. Running from Red Rock, Montana, to the Gulf of Mexico, the river drains 31 U.S. states and 2 Canadian provinces, and divides the United States into east and west.

A stitch  
in time...

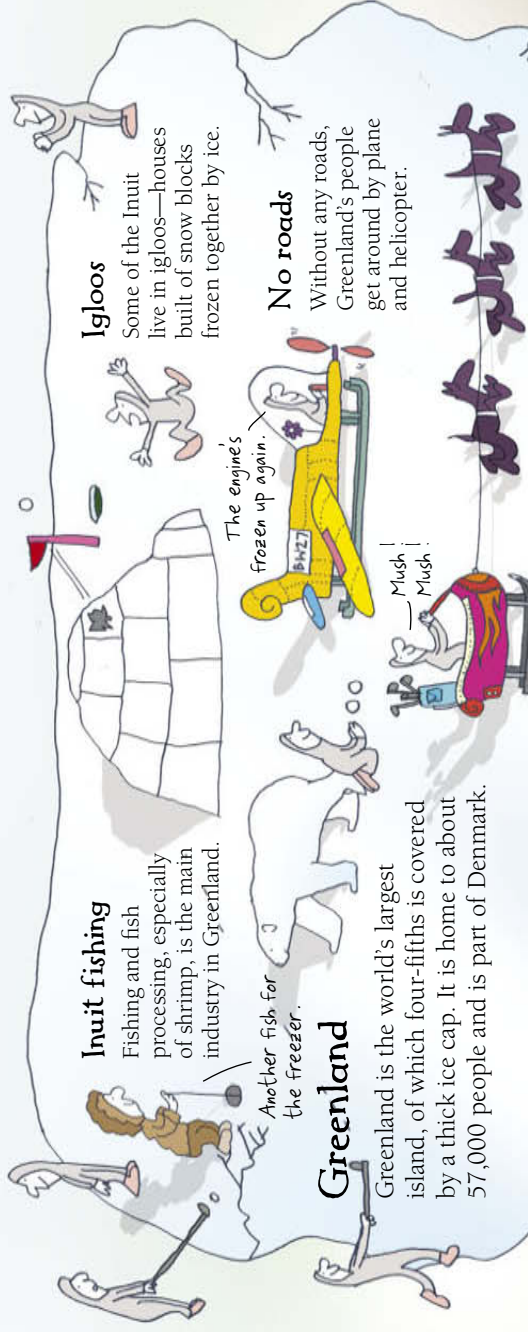
## The Caribbean

Named after the Caribs, one of the native peoples who inhabited this region, the Caribbean Sea is surrounded by a chain of mainly volcanic islands—the Greater Antilles to its north, the Lesser Antilles to its east—which benefit from an alluringly warm climate, but are often subject to hurricanes during summer and fall.

# CRAZY GOLF

The continent of North America is home to more than 500 million people, most of whom speak English or Spanish. In its north is Canada, a beautiful country with the largest group of French speakers outside France, and to its south is the United States and Caribbean Islands, the former being the richest and most powerful country in the world, while the latter attracts thousands of tourists to its beautiful beaches.

*It's an either/or situation.*



## Inuit fishing

Fishing and fish processing, especially of shrimp, is the main industry in Greenland.

*Another fish for the freezer.*

## Igloos

Some of the Inuit live in igloos—houses built of snow blocks frozen together by ice.

## Greenland

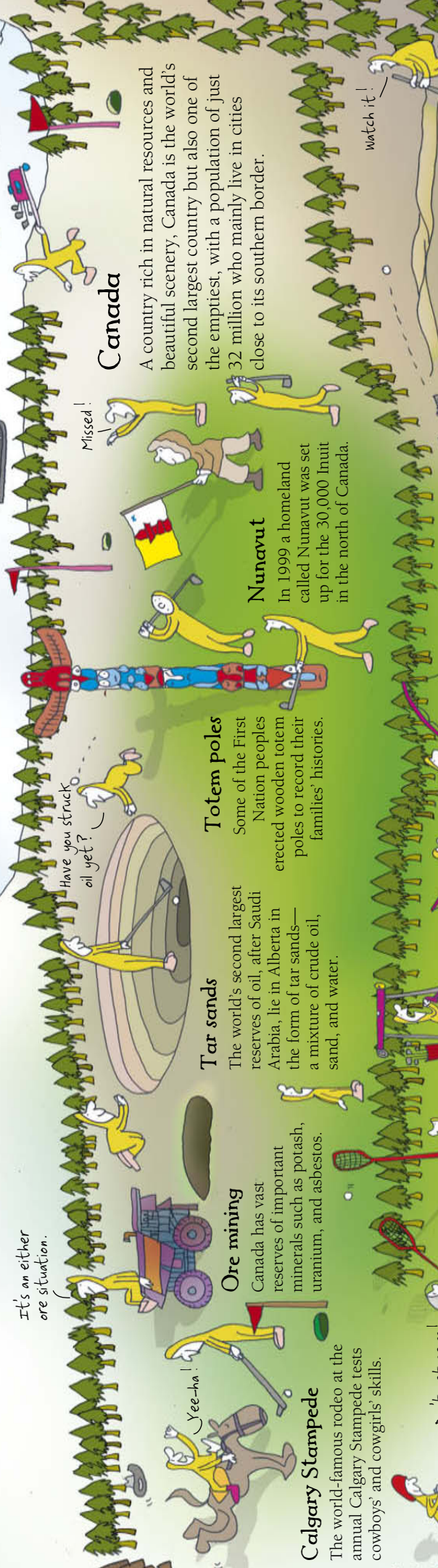
Greenland is the world's largest island, of which four-fifths is covered by a thick ice cap. It is home to about 57,000 people and is part of Denmark.

## No roads

Without any roads, Greenland's people get around by plane and helicopter.

*The engine's frozen up again.*

*Mush! Mush!*



*Have you struck oil yet?*

## Canada

A country rich in natural resources and beautiful scenery, Canada is the world's second largest country but also one of the emptiest, with a population of just 32 million who mainly live in cities close to its southern border.

## Nunavut

In 1999 a homeland called Nunavut was set up for the 30,000 Inuit in the north of Canada.

## Totem poles

Some of the First Nation peoples erected wooden totem poles to record their families' histories.

## Tar sands

The world's second largest reserves of oil, after Saudi Arabia, lie in Alberta in the form of tar sands—a mixture of crude oil, sand, and water.

## Ore mining

Canada has vast reserves of important minerals such as potash, uranium, and asbestos.

## Calgary Stampede

The world-famous rodeo at the annual Calgary Stampede tests cowboys' and cowgirls' skills.

## Lacrosse

The rules of lacrosse were recorded by Canadian William George Beers in 1867, and the game has remained popular in Canada ever since.

## Hockey

The national winter sport of Canada, hockey is hugely popular and played throughout the country.

## Cod fishing

The Grand Banks off the southeast coast of Newfoundland were the richest cod fisheries in the world, but overfishing has drastically reduced stocks.

## Niagara Falls

The colossal Niagara Falls sits on the border between the U.S. and Canada.

## Québec

Once ruled by France, the vast majority of Québec's people still speak French as their main language.

## CN Tower

At a dizzying 1,465ft (447m) high, the world's highest public observation deck is boasted by the CN Tower.

## The Rocky Mountains

The Rockies run down the west of Canada, separating the Prairies from the Pacific coastline.

## Maple

The maple leaf is the national symbol of Canada and appears in the middle of the flag.

## Prairies

The farms on the Prairies of southern Alberta, Saskatchewan, and Manitoba are among the largest in the world.

*I'm turning over a new leaf.*

*Watch it!*

## United States of America

Stretching across the North American continent from the Atlantic to the Pacific coast, the United States is made up of 50 very different states and is home to 300 million people.

### The Aleuts

In western Alaska and the Aleutian Islands are the Aleuts, who live off the sea and are skilled hunters.

I'm on the hunt.

A hero's welcome.

### Ticketape parade

American heroes parade through New York to streams of ticketape floating down on them from the skyscrapers above.

### Walt Disney World

Walt Disney's cartoon creations can all be found at the theme park Walt Disney World in Orlando, Florida.

They're in a world of their own.

This is twisted.

Let me have a whirl.

### Yellowstone

The oldest and largest national park in the United States, Yellowstone contains more than half the world's geysers.

Who's that geezer?

### Tornadoes

Several hundred twisters a year run through "Tornado Alley" in Oklahoma, Kansas, and Missouri.

I'm running away to be famous.

I heard there was a herd nearby.

That's wild.

# HOLLYWOOD

### Hollywood

The center of the U.S. film industry, Hollywood, California, is home to the annual star-studded Oscar awards.

### Cowboys

Cowboys look after the vast herds of cattle that roam America's Wild West, although today most ride in 4x4 pickups.

Like my screensaver?

### Computers

The U.S. computer industry is based on the west coast, employing hundreds of thousands of people developing new software.

### Gulf of Mexico

The Gulf of Mexico is rich in oil, although massive hurricanes often stop production during the fall.

Did you say golf of Mexico?

### Statue of Liberty

The 305ft- (93m-) tall Statue of Liberty stands in New York Harbor, a gift to the American people from the French in 1886.

Merci, mes amis.

Nice house!

Watch the windows!

### White House

The White House in Washington is the home of the U.S. president, who runs the country from the famous Oval Office.

Batter up.

### Baseball

Baseball is the national game of the United States. The winning teams of the National League and the American League compete each year in the World Series.

Quit tooting your own horn.

### Jazz

One of America's greatest contributions to modern music, jazz originated in New Orleans around 1900.

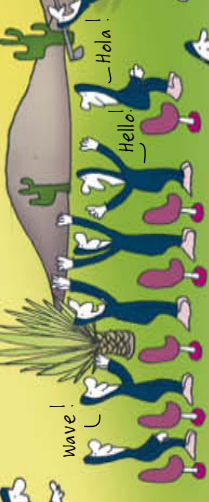
### Mississippi

Huge paddle-steamers sail up and down the Mississippi River, traditionally carrying people and freight, but today carrying mainly tourists.

I'm out of steam.

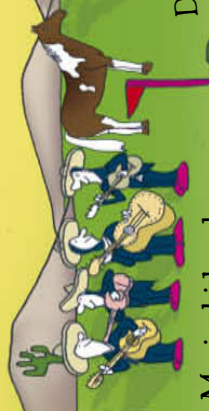
# Mexico

With more than 107 million people, Mexico is the largest Spanish-speaking country in the world and was once the center of the mighty Aztec Empire.



## Mexican Wave

The ripple effect of the Mexican Wave is famous and so-named after spectators "waved" at the 1986 World Cup in Mexico.



## Mariachi bands

Traditional folk musicians wearing national costume are popular performers throughout Mexico.



## Day of the Dead

Mexicans celebrate the Day of the Dead each year, when the souls of the dead are said to visit their loved ones.



## Mexico City

The mountains that surround Mexico City trap air pollution, causing a thick layer of smog to blanket the city.

## Yucatan

The limestone of the Yucatan peninsula has worn away in some places to form spectacular cenotes (sink holes) and caves.



## Caballeros

Mexican cowboys, known as caballeros locally, are skilled horse riders.



## Mexican food

Burritos, guacamole, and chilies are just some of Mexico's world-famous foods.

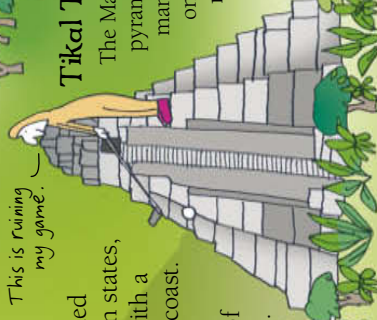


## Guatemala

The largest and most populated of the seven Central American states, Guatemala is mountainous with a fertile plain along the Pacific coast. More than half its people are Amerindians—descendants of the original Maya inhabitants.

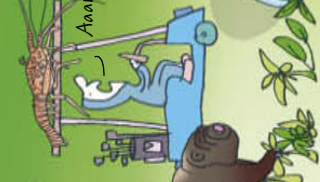
## Tikal Temple

The Maya built huge pyramid-shaped temples, many of which were only recently rediscovered and restored.



## Belize

Once a British colony, Belize is the only English-speaking country in Central America. It is the least populated country in the region and half its land is heavily forested.



## Barrier reef

Belize's barrier reef is the second largest in the world, and protects the country's low-lying, swampy coastal plain.



## El Salvador

The smallest and most densely populated of the Central American republics, El Salvador lies on the Pacific coast and grows coffee and other crops for export.



## Volcanoes

A line of 20 volcanoes runs through the country, providing cheap and plentiful geothermal energy.

## Hurricane Mitch

In 1998 Honduras and neighboring Nicaragua suffered huge devastation by Hurricane Mitch.



## Bananas

Here, as elsewhere in the region, the main crop is bananas, although coffee, fruit, and flowers are also grown for export.



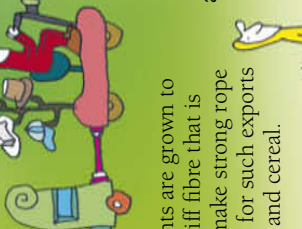
## Honduras

Mountainous Honduras has a long coastline on the Caribbean Sea and a short, sheltered outlet to the Pacific. Almost all of its 7.2 million people are Mestizos—mixed Spanish-Amerindian.



## Sisal

Sisal plants are grown to yield a stiff fibre that is used to make strong rope and bags for such exports as coffee and cereal.



## Nicaragua

The fertile volcanic soil along the Pacific coastline forms the main farming region in Nicaragua. Corn, beans, and sorghum are harvested twice a year while coffee, cotton, and bananas are grown for export.



## Lake Nicaragua

Dominating the south of Nicaragua, Lake Nicaragua is the only freshwater lake in the world to contain sea fish, including scary sharks and vigorous swordfish.



## Costa Rica

One of the richest countries in the region, Costa Rica was the first country in the region to grow coffee, which today is one of its main exports, as well as bananas.



## Ecotourism

Costa Rica's forests and wildlife are today protected in reserves and national parks, which attract ecotourists from around the world.



The world's your lobster.

This place is bananas.

Where's that chameleon?

Cream and sugar, please.

Explosive stuff!

It's in the bag.

## Cuba

The largest island in the Caribbean Sea, Cuba is made up of mountains, rolling hills, and flat plains. It is very fertile and rich in nickel, cobalt, and other minerals.

### Cigars

Cuba's warm days and cool nights are ideal for growing tobacco, which is cut, dried, and rolled to make the world-famous Cuban cigars.

Would you like sugar?

It's it a Cuban cube?

### Sugar cane

Sugar and its many by-products account for half of Cuba's total exports, along with coffee, tobacco, fish, and minerals.



## Panama

Long, thin Panama is the most southerly country in Central America, forming a land link to South America. Its climate is hot and humid with heavy rainfall, enabling a wide range of crops to be grown in its fertile soil.

### Panama Canal

The Panama Canal is an important sea route between the Atlantic and Pacific oceans.

## Aluminum

Costa Rica has large reserves of bauxite that are smelted to make aluminum.

That smelts my heart!

## Jamaica

The English-speaking island of Jamaica is rich in minerals—it is the world's fourth largest producer of bauxite—and has a fertile landscape with beautiful beaches.

irie, mon.

### Rastafarianism

The Rastafarian religion began in Jamaica in the 1930s. Rastafarians believe that God will lead black people home to the promised land of Ethiopia.

### Music

The slums of Kingston, the island's capital, have produced music styles such as ska, reggae, and ragga (dancehall).

## Puerto Rico

Spanish-speaking Puerto Rico has been a U.S. territory since 1898, and many U.S. companies produce cheap goods here to sell back home.

Stop crowding me!

### Tourism

With its fine beaches and cheap hotels, the Dominican Republic is the Caribbean's most popular tourist destination.

Fore!

## Bahamas

The island chain of the Bahamas lies northeast of Cuba in the Atlantic Ocean, and is a wealthy financial center. Only 30 of the 700 islands are inhabited.

### Tourism

More than 40 percent of the Bahamas' population works in the tourist industry, mainly servicing the many cruise liners that visit the islands.

I'm cruisin' through life!

## Shared island

The island of Hispaniola is shared by two nations—Haiti (the first independent nation in the Caribbean) in the west and the Dominican Republic in the east.

Missed!

I can't see the forest for the trees.

### Tree loss

Both nations suffer from deforestation, as trees are cut down for firewood or to clear the ground for agriculture.

## Windward Islands

The seven island groups of the Windwards are mainly hilly and very fertile, with Grenada being one of the major spice-producing nations in the world.

I've got a pounding headache.

FINISH

### Cricket

The British introduced cricket to the West Indies, where it is now a major sport.

Steel-pan drums

Providing music for Trinidad's annual carnival, the steel-pan drums were invented on the island.

## Leeward Islands

A mixture of independent nations and British, French, Dutch, and U.S. colonies, the Leeward Islands are so-called because they are in the "lee" of the Windward Islands that shelter them from the prevailing winds.

### Montserrat

The Soufrière Hills volcano exploded on Montserrat in 1997, making two-thirds of the island uninhabitable.

Who's paying?

Let's go Dutch.

### St. Martin

Split between French and Dutch rule, St. Martin's people speak two languages and use two currencies.

# WORLD'S STRUCTURE

Our Earth is a complex ball of different chemical elements combined together to form rocks and minerals that are constantly on the move. The tectonic plates that, pieced together, make up Earth's shell are constantly shifting and breaking up the landscape. As continents drift and jostle across Earth's surface, massive mountain ranges are thrown up, volcanoes erupt, and earthquakes shake the ground beneath our feet.

## Earth's layers

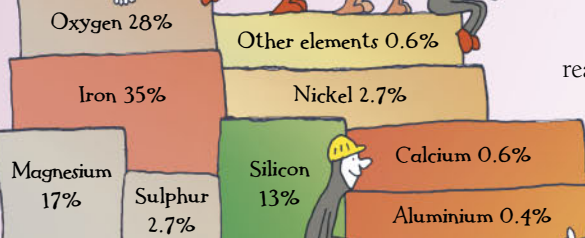
Earth is made up of different layers, with a solid metal inner core, made hard by immense pressure, and an outer core of molten metals. Wrapped around the core is a layer of solid rock, which turns molten as it edges toward Earth's crust—the rigid layer of Earth's shell.

## Inside Earth

Dig just below the surface of the Earth and the temperature drops slightly. However, from there on down the temperature rises to be fantastically hot, so that by the time you reach Earth's inner core, the temperature has soared to a scorching 6,700°F (3,700°C).

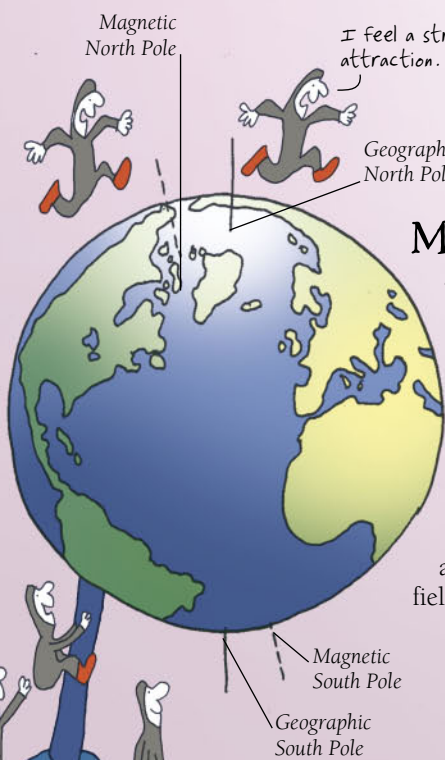
## Chemical makeup

More than 80 separate elements make up Earth. The largest component is iron, which is thought to be found largely in the core. Oxygen, magnesium, and silicon are also important elements in Earth's structure, and occur in large quantities.



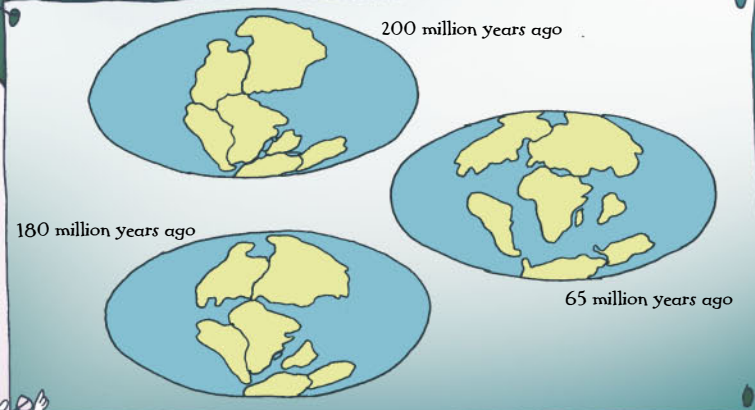
## Magnetic Earth

The dense core of iron that makes up Earth's core turns it into a giant magnet which, like all magnets, has a north and south pole. These two magnetic poles are different from the geographical poles, and move around as much as 25 miles (40km) a year as Earth's magnetic field varies.



## On the move

The world's continents sit on top of moving tectonic plates that float on Earth's upper mantle. These plates were once joined together, but gradually broke up and drifted apart to form the continents we know today.





Mountains thrust upward.

Moving plates

## Buckling plates

As one tectonic plate hits another, it buckles and throws up a huge mountain chain, such as the Himalayas in central Asia. Because the plates are constantly moving, this process never ends—the Himalayas continue to rise by about 0.2in (5mm) each year.

Don't buckle under pressure.

## Fractured Earth

As Earth's tectonic plates knock into or slide past each other, they often put the rocks under such strain that they crack or fracture into faults. This allows the blocks of rock to move up, down, or sideways against each other along these faults.

This one's faulty.

Fault line

Blocks moving in opposite directions along the fault

I feel shaky.

I'm quaking in my boots!

This is shocking.

Shock waves

## Shaky Earth

Tectonic plates usually slide past each other with little problem, but occasionally the plates get stuck. The forces pushing the plates then build up until the rocks give way, resulting in a sudden movement of the plates that sends out shock waves, or vibrations, through the ground—an earthquake.

Fault line, where the two plates meet

Now, focus!

Focus of earthquake

Did you feel something?

My hardhat blew off!

Volcano built up from layers of lava and ash

Ashes to ashes...

Main volcanic pipe or vent

Branch pipe

Magma chamber

## Exploding Earth

Volcanoes are gaps in Earth's crust through which magma (hot, molten rock) and ash are flung across the surface, forced out by a buildup of gases underground, in what can be spectacularly violent eruptions.

I'm feeling gassy.

## Rock cycle

As Earth has evolved over millions of years, three main types of rock have formed in its crust: igneous rocks formed as molten magma solidified, metamorphic rocks were transformed by heat or pressure, while sedimentary rocks are compacted debris that settled on the ocean floor millions of years ago.

Rock and roll!

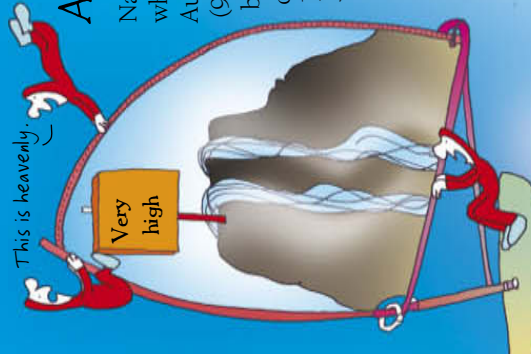
Yikes!

A landslide!

You've got rocks in your head.

# SOUTH AMERICA

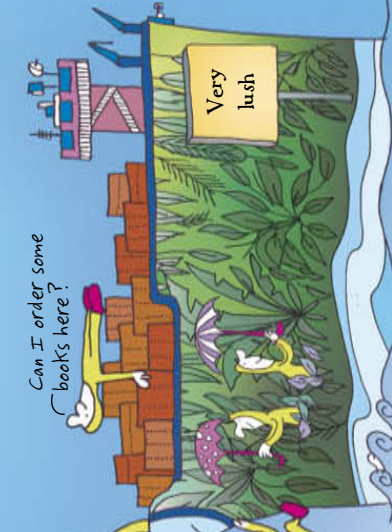
The triangle-shaped continent of South America is the fourth largest in size. The towering Andes mountains stretch the length of its Pacific coast from Colombia in the north to the tip of Chile and Argentina in the south. To the east of the Andes lie the massive and luscious Amazon rain forest, and the grassy Gran Chaco and Pampas regions.



This is heavenly.

## Angel Falls

Named after American pilot Jimmy Angel who spotted the falls in 1935, water from the Auyantepui plateau in Venezuela falls 3,212ft (979m) into the Churún River below. Its greatest single drop of 2,648ft (807m) is the highest uninterrupted waterfall in the world.



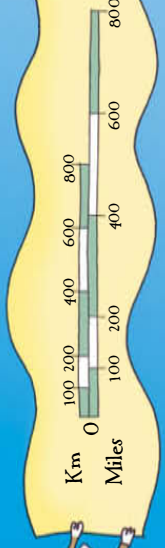
Can I order some books here?

Very Wide  
Ain't no river wide enough...

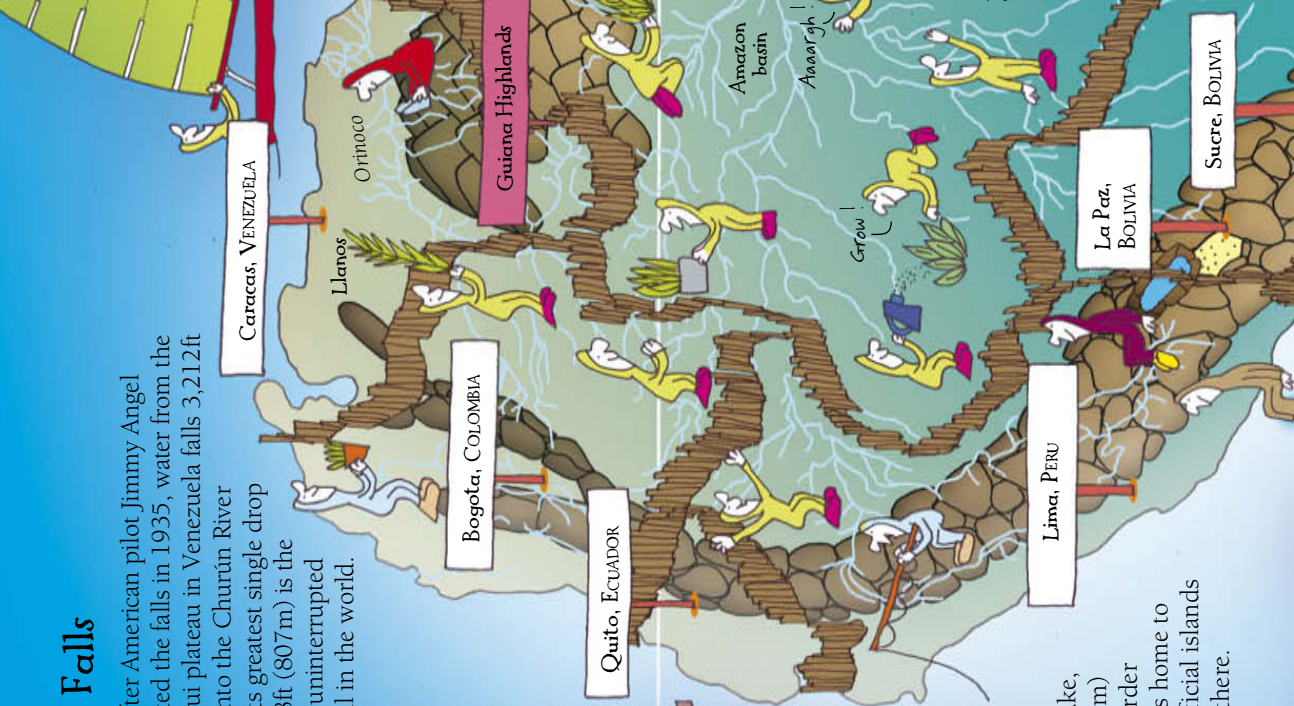
It's off the charts!

## Amazon River

The Amazon River rises in the Andes and, after a lengthy journey of about 4,000 miles (6,400km), tips itself into the Atlantic Ocean. It carries more water than the Nile (the longest river in the world), has the largest drainage basin of any river anywhere, and is so wide that not a single bridge crosses over it.



Aaaaagh!



Caracas, VENEZUELA

Georgetown, GUYANA

Llanos

Orinoco

Guiana Highlands

Paramaribo, SURINAME

Cayenne, FRENCH GUIANA

Bogota, COLOMBIA

Quito, ECUADOR

Equator

Amazon basin

Amazon

What leak?

Is that a leak?

There's something fishy about this.

Boo!

Aaaaagh!

A balmly palm!

Grow!

Lima, PERU

La Paz, BOLIVIA

Sucre, BOLIVIA

Brasilia, BRAZIL

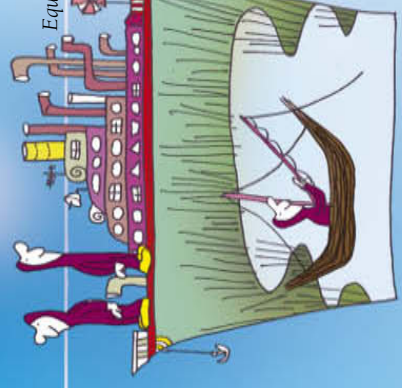
Brazilian Highlands

## Lake Titicaca

The world's highest navigable lake, Lake Titicaca is 12,507ft (3,812m) above sea level. It lies on the border between Bolivia and Peru, and is home to the Uru people who live on artificial islands made from the reeds that grow there.

## Amazon rain forest

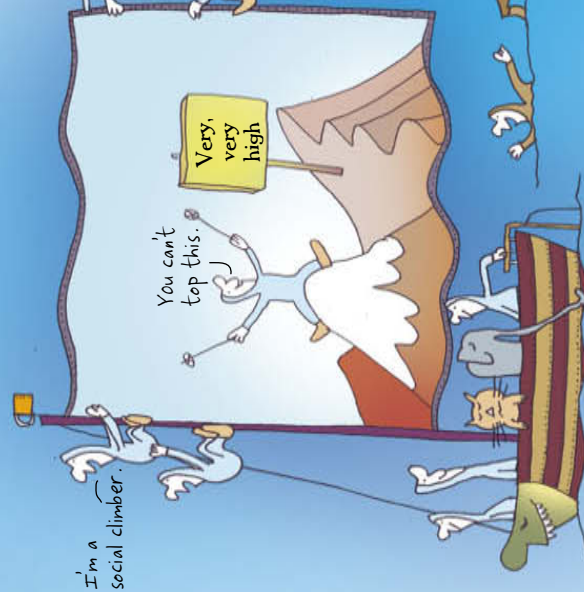
Almost the entire Amazon River basin is covered in the largest tropical rain forest in the world. One-fifth of all the world's species of birds lives here, as well as 2.5 million insect species, 2,000 different mammals, and many thousands of different types of trees and plants.





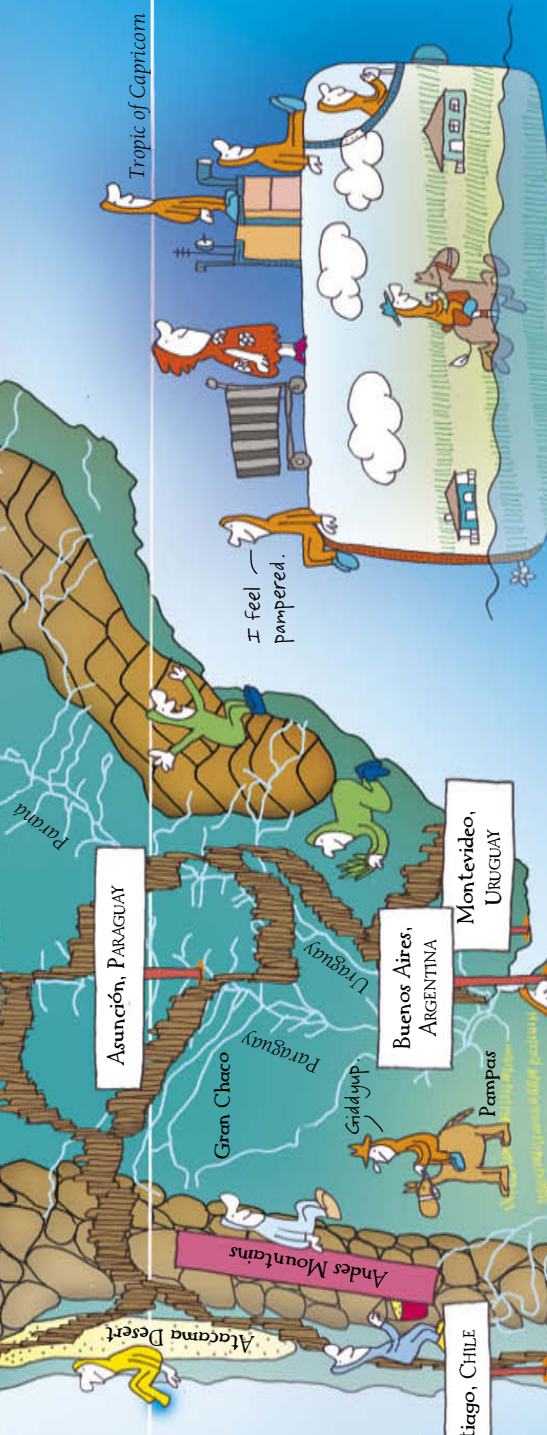
## Atacama Desert

Setting yet another world record, the Atacama Desert in northern Chile is the driest place on Earth. Its average rainfall is no more than 0.04in (1mm) a year, and for 400 years, it didn't rain at all!



## Andes Mountains

The Andes are a continuous chain of mountains that run for more than 4,400 miles (7,000km) down the west coast of South America. The Andes are also the highest mountain range in the world outside Asia, rising up to 22,841ft (6,982m) above sea level at Mount Aconcagua in Argentina.



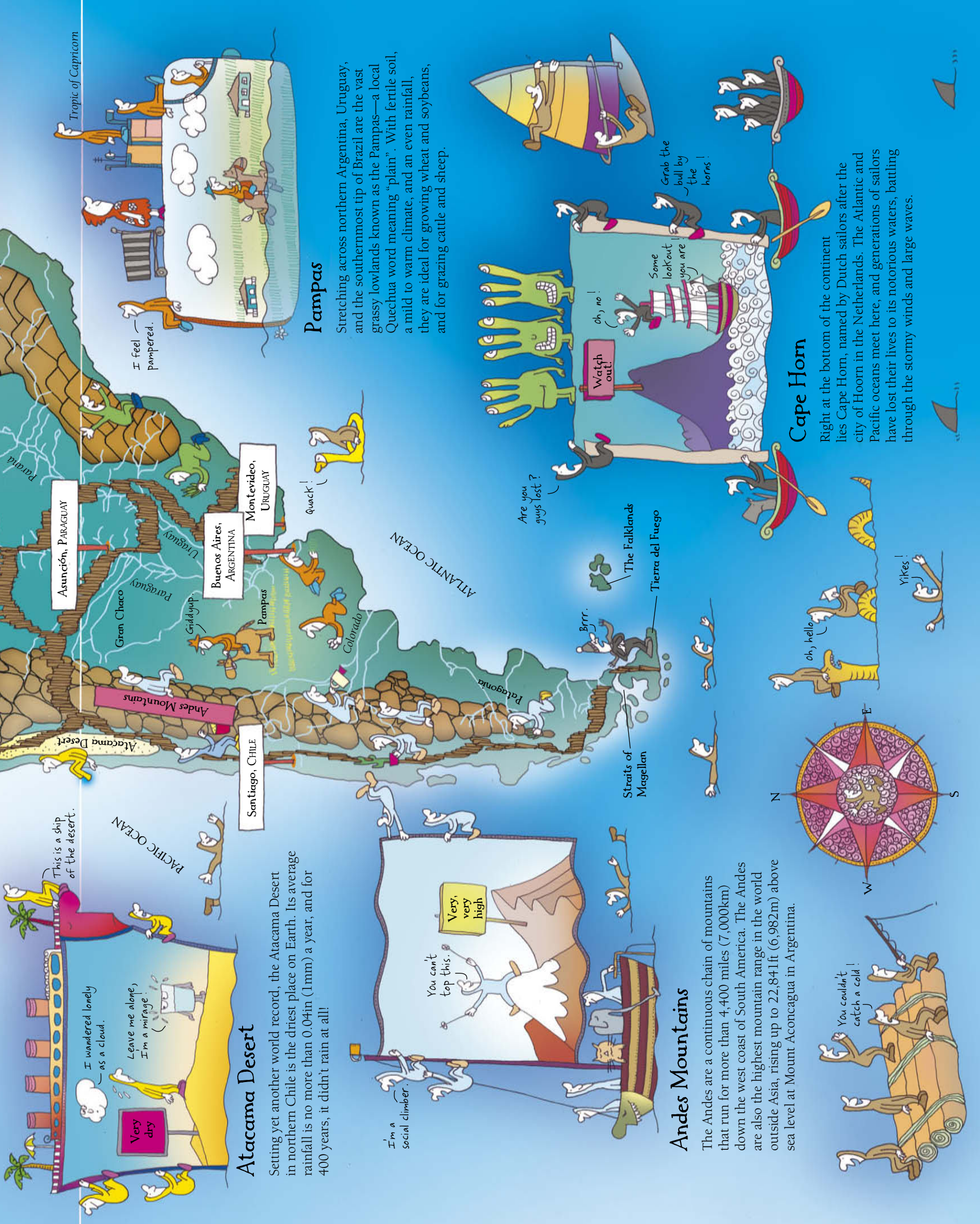
## Pampas

Stretching across northern Argentina, Uruguay, and the southernmost tip of Brazil are the vast grassy lowlands known as the Pampas—a local Quechua word meaning “plain”. With fertile soil, a mild to warm climate, and an even rainfall, they are ideal for growing wheat and soybeans, and for grazing cattle and sheep.



## Cape Horn

Right at the bottom of the continent lies Cape Horn, named by Dutch sailors after the city of Hoorn in the Netherlands. The Atlantic and Pacific oceans meet here, and generations of sailors have lost their lives to its notorious waters, battling through the stormy winds and large waves.



Azuarcón, PARAGUAY

Gran Chaco

Giddyup!

Buenos Aires, ARGENTINA

Montevideo, URUGUAY

Santiago, CHILE

Quack!

Colorado

ATLANTIC OCEAN

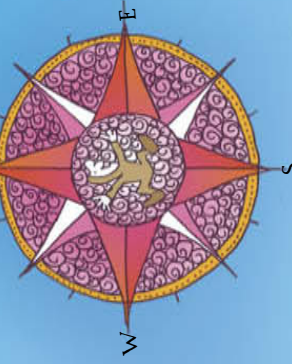
Patagonia

Brrr.

Straits of Magellan

The Falklands

Tierra del Fuego



Oh, hello

Yikes!

# CARNIVAL PARADE

South America is home to 380 million people living in 13 different countries. Heavily influenced by colonization, the overwhelming majority of people are Roman Catholic, and most people speak Spanish or, in Brazil—which is the continent's biggest country by far—Portuguese.

## Brazil

Big Brazil is home to a highly diverse population of more than 179 million people. It is thought to be named after the native brazilwood tree.

### Christ the Redeemer

Erected on top of Corcovado Mountain in 1931, the *Cristo Redentor* statue towers over Rio de Janeiro.

This is nets!

### Brasilia

Inaugurated as the new capital city in 1960, Brasilia is built in the shape of an airplane and has many extraordinary buildings, including a cathedral.

This is the life.

Copacabana Beach

I'm full of beans.

### City life

About 82 percent of Brazilians live in cities, many of them in São Paulo, the world's seventh-largest city.

### Amazon rain forest

The rain forest covers a third of Brazil, but is in danger from deforestation by loggers and cattle ranchers.

### Soccer crazy

Brazil has won the World Cup more times than any other country and produced some of the world's finest players.

Ur a swell guy.

### Mate tea

Mate—a healthy tea made from the yerba mate herb—is the national drink enjoyed across South America through a silver *bombilla* or straw from a shared calabash gourd.

Hey there mate.

## Uruguay

Tucked in between Brazil and Argentina, Uruguay is a small, low-lying country of fertile grasslands and temperate climate. Its 3.4 million people are mainly second- or third-generation Europeans from Spain or Italy.

### Agriculture

Uruguay is covered in fertile pasture, supporting millions of sheep and cattle. Wool and woolen products are a major export.

They're looking sheepish.

### Fray Bentos

Fray Bentos is a large town whose name has been brought to fame by its meatpacking industry.

### Traditional barbecue

With cuts of beef and other meats cooked on a grill or open fire, an *asado* is a great tradition!

Asado

## Paraguay

Landlocked and with few natural resources, Paraguay is largely agricultural. The majority of people are bilingual, speaking Spanish and Guaraní.

## Asunción

The full name of Paraguay's capital city is Nuestra Señora Santa María Asunción. It is the country's principal port, situated on the Paraguay River.

## Agriculture

The fertile plains of Paraguay are ideal for growing cotton, soybeans, and other crops for export.

## Woven bags

Many Guaraní and Macá Amerindians of the vast Gran Chaco region make a living by selling woven bags to tourists.

## Top trains

In 1857, the first railway line opened in Argentina, which soon boasted one of the world's largest rail networks.

## Chile

Oddly shaped Chile is 2,610 miles (4,200km) long and only 112 miles (180km) wide. This elongated country has a hot desert in the north, glaciers in the south, and a Mediterranean-style climate in the center.

## Atacama Desert

The Atacama Desert is rich in minerals, including copper, of which Chile is the world's largest exporter.

## Angry Earth

Chile has more than 620 volcanoes, many of them active, and the country is also affected by strong earthquakes.

## Twice as good

Unlike most countries, Bolivia has not one but two capital cities, La Paz and Sucre.

## Argentina

Traditionally agricultural, the second largest country in South America stretches 2,290 miles (3,694km) from the north to the island of Tierra del Fuego in the south.

## Itaipú Dam

The Itaipú Dam on the Paraná River covers all of Paraguay's energy needs, and even some of Brazil's.

## Tango

Originating in the slums of Buenos Aires in the late 1800s, the tango is now the national dance of Argentina.

## Patagonia

In the south of Argentina lies Patagonia, a largely agricultural area with small communities of former Welsh settlers.

## Fruitful valleys

The valleys in the center of Chile produce world-class vines for making wine, as well as fruit, tobacco, and other crops.

## INCA TRAIL

Does it have two presidents?

Hot stuff!

SUCRE

LA PAZ  
Highest capital city in the world

I'm not for sale.

It's all downhill from here.

Hi!

Hiya!

Mr. ACONCAGUA,  
ARGENTINA

Highest mountain in South America

## Punta Arenas

Chile's Punta Arenas is the most southerly city in the world and sits underneath the hole in the ozone layer. So, beware the dangerous rays of the Sun!

## Andes Mountains

Running the length of Chile along the border with Bolivia and Argentina, the Andes account for more than 80 percent of the country's landscape.

## Peru

Most Peruvians are Amerindians and descendants of the Incas who ruled the region 400 years ago. Others are mestizo (mixed race), and a few are of European descent. The country is rich in mineral resources and is mainly agricultural.

### Llamas

Relled on as pack animals, llamas are also bred for their wool, meat, and their droppings are used as fuel.

### Fishing industry

The cool coastal waters of Peru teem with plankton, which provide food for huge numbers of anchovies, sardines, and mackerel.

Holy mackerel!

### High train

At 15,885ft (4,843m) above sea level, Peru has the highest railway track in the world.

### Potatoes

The original Inca peoples of Peru were the first people to grow potatoes, drying them to produce flour for making bread.

I'm Mr. Potato Head.

one potato,  
two potato...

## Ecuador

Named after the Equator, which cuts through it, Ecuador consists of coastal lowlands and the Amazon River basin, which are separated by the Andes Mountains. After a major economic crisis from 1998 to 1999, the country began using the U.S. dollar.

Those dollars make cents.

### Bananas

Ecuador is one of the world's largest producers of bananas, growing them on the fertile coastal plains.

They're going bananas.

What a strange bunch.

### Panama hat

Made from the leaves of the jipijapa plant, Panama hats are actually made in Ecuador for export to Panama.

Hats off to you.

### Otovalo wool

High in the Andes, the Otovalo Amerindians weave llama and alpaca wool to make woolen goods for selling.

wooly bully!

Take your time, George.

### Lonesome George

The aptly named Lonesome George is the last remaining Abingdon Island tortoise, native to the offshore Galapagos Islands.

Aaargh!

### Mangrove swamps

The saltwater mangrove swamps on the coast support millions of shrimp, which are now farmed for export.

### Tin mining

Bolivia is one of the world's major producers of tin, as well as gold, silver, iron, zinc, and magnesium, among other minerals.

I've got a tin ear.

### Lake Titicaca

Despite being landlocked, Bolivia has a naval force, which uses Lake Titicaca for naval exercises.

## Bolivia

Landlocked Bolivia has the world's highest capital city, golf course, ski run, and soccer stadium. About 70 percent of the people are Quechua or Aymara Amerindians, while the rest are European descendants or of mixed race.

## Colombia

Colombia is one of the richest countries in South America, with quantities of gold, emeralds, vast energy reserves, and a climate that supports two crops a year.

### **Emeralds**

Mines near Colombia's capital, Bogotá, produce more than half the world's emeralds, which are considered the finest in the world.

Coffee anyone?

You're a gem...

### **Coffee**

Traditionally, coffee has always been an important export for Colombia. Today, it is still one of the world's largest coffee exporters.

### **Resourceful lands**

With massive reserves of coal, oil, and natural gas, Colombia is almost self-sufficient in energy.

### **Swampy rivers**

The coastal regions of the Guianas are humid, swampy, and low-lying—ideal for growing rice, sugar cane, and other tropical products.

### **Rain forest tribes**

The Yanomami are a native people of hunters and gatherers who live in enormous thatched circular huts called *yanos*.

## Venezuela

When Italian explorer Amerigo Vespucci first visited the area in 1499, he named the land Venezuela, or "Little Venice." Today it is a wealthy country due to its immense oil and mineral reserves, and is very urbanized, with 90 percent of its people living in cities.

### **Caracas**

Heavily populated, Venezuela's capital city is now a major financial and commercial center.

## The Guianas

The Guiana coast was colonized by the British, Dutch, and French. Former British Guiana is now independent Guyana, Dutch Guiana is now independent Suriname, while French Guiana remains as the only European colony left on the South American mainland.

### **Suriname**

Dutch influence is still evident in the capital city, Paramaribo, which boasts many Dutch-style buildings.

This is a stylish building.

### **French Guiana**

The European Space Agency launches its Ariane rockets from Kourou on the north coast of French Guiana.

### **Guyana**

The British took control of the country in 1814 and concentrated on growing sugar. Today, it remains famous for its Demerara sugar.

One lump or two?

### **Pearly whites**

First heavily fished by the Spanish in the 1500s, the oysters of Venezuela's Pearl Coast are today greatly depleted.

### **Mineral wealth**

Venezuela has vast mineral reserves of coal, iron, bauxite, and gold.

### **Quinoa**

Quinoa—a protein-rich cereal that was important in pre-Columbian civilizations—is grown high up in the Andes. Incas called Quinoa the "mother of all seeds."

### **Dance the Cumbia**

Many Colombians dance the *Cumbia*—a dance based on a blend of traditions from its past cultures.

Do you Cumbia often?

We're rich!

Can't see any falling angels.

Why, halo there.

ANGEL FALLS

# WORLD'S SURFACE

The world's land surface is under constant attack from heat, wind, water, ice, and the sea. These forces gradually shape and rearrange Earth's landscape over many years, sculpting rocks into weird and wonderful shapes, breaking them up, and moving the debris from one place to another.

Wadi—a narrow gorge carved by rare flash floods

Mesa—a flat-topped desert mountain

## Heat erosion

Most deserts are bare rock, which is sculpted by the combined effects of extreme temperatures and strong winds to create dramatic desert landscapes.

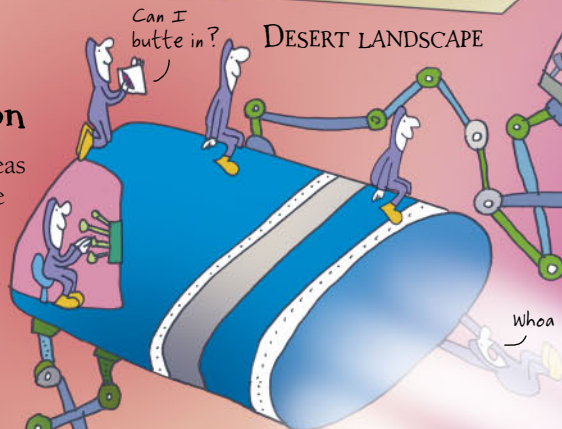
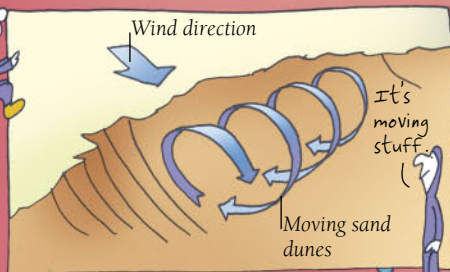
Butte—an isolated peak of rock

This subject's a little dry.

## Wind erosion

Some deserts, such as the Sahara, have vast areas of sand that are blown by the wind into huge sand dunes. With little vegetation to hold them in place, the sand dunes move across the desert, constantly changing its landscape.

## DESERT LANDSCAPE

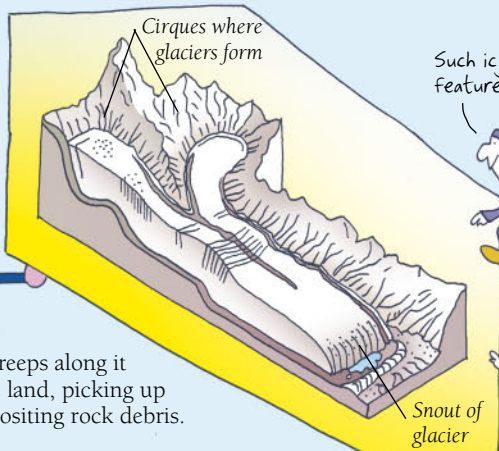


I'm feeling parched.

## Ice erosion

At the Poles and in the mountains, large areas of land are covered by ice. Some of this ice moves downhill as a frozen river or glacier, cutting into the land and carving out great U-shaped valleys.

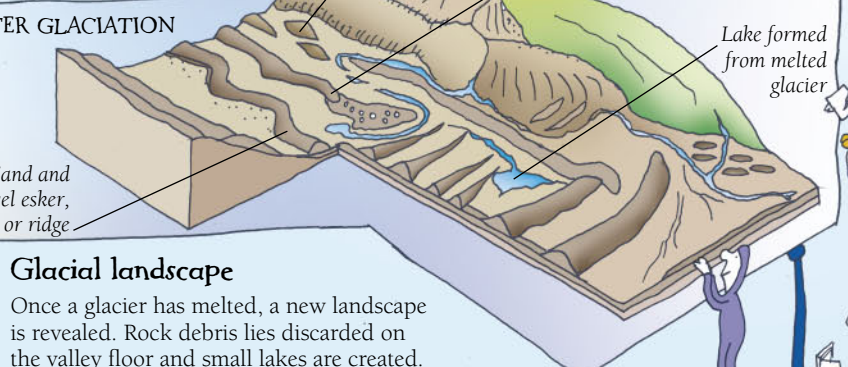
## FEATURES OF A GLACIER



## Glaciers

As a glacier creeps along it bulldozes the land, picking up and then depositing rock debris.

## AFTER GLACIATION



## Glacial landscape

Once a glacier has melted, a new landscape is revealed. Rock debris lies discarded on the valley floor and small lakes are created.

Brrrr

I'm feeling blue.

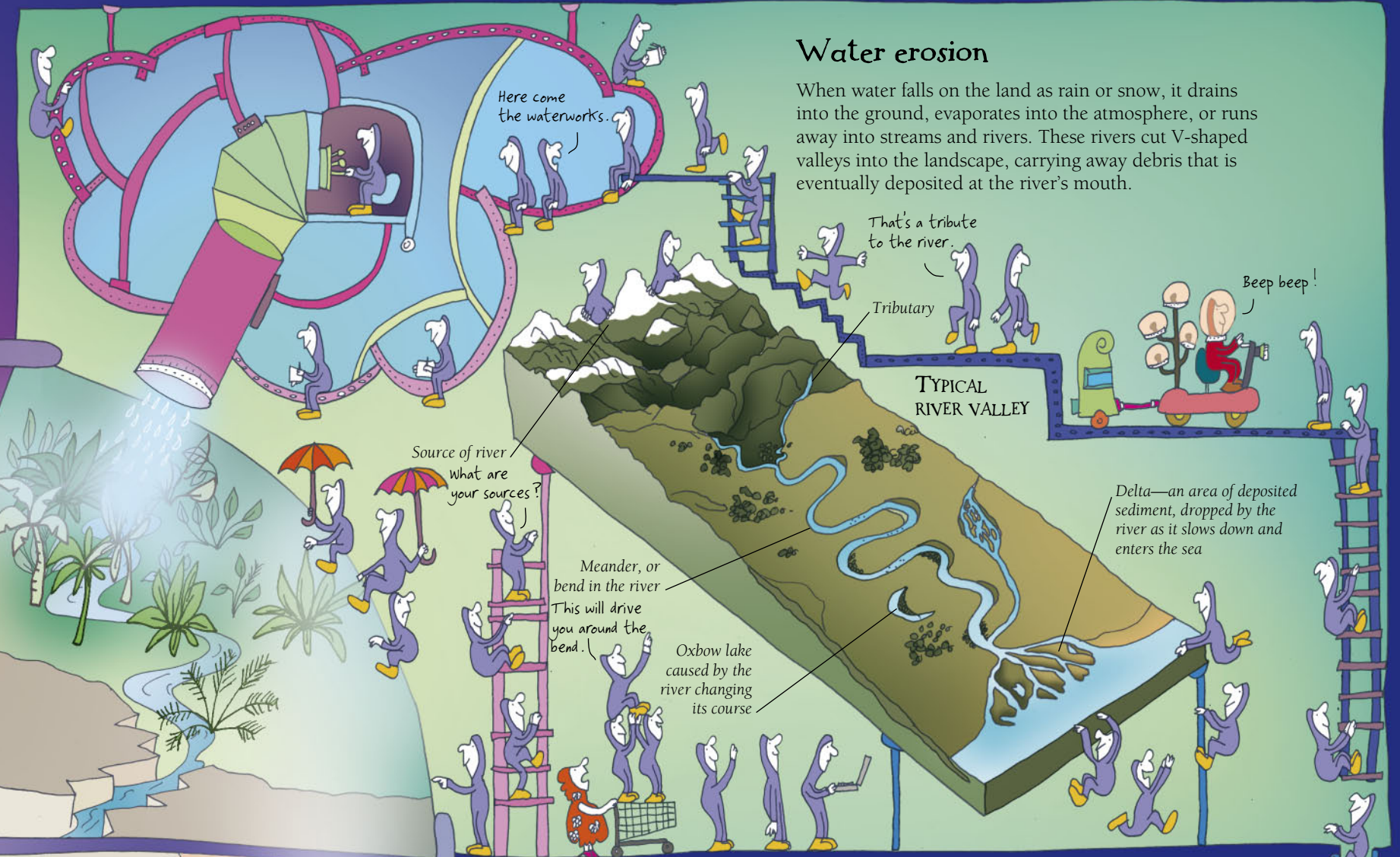
Don't give me the cold shoulder!

Let's go back. I've got cold feet.



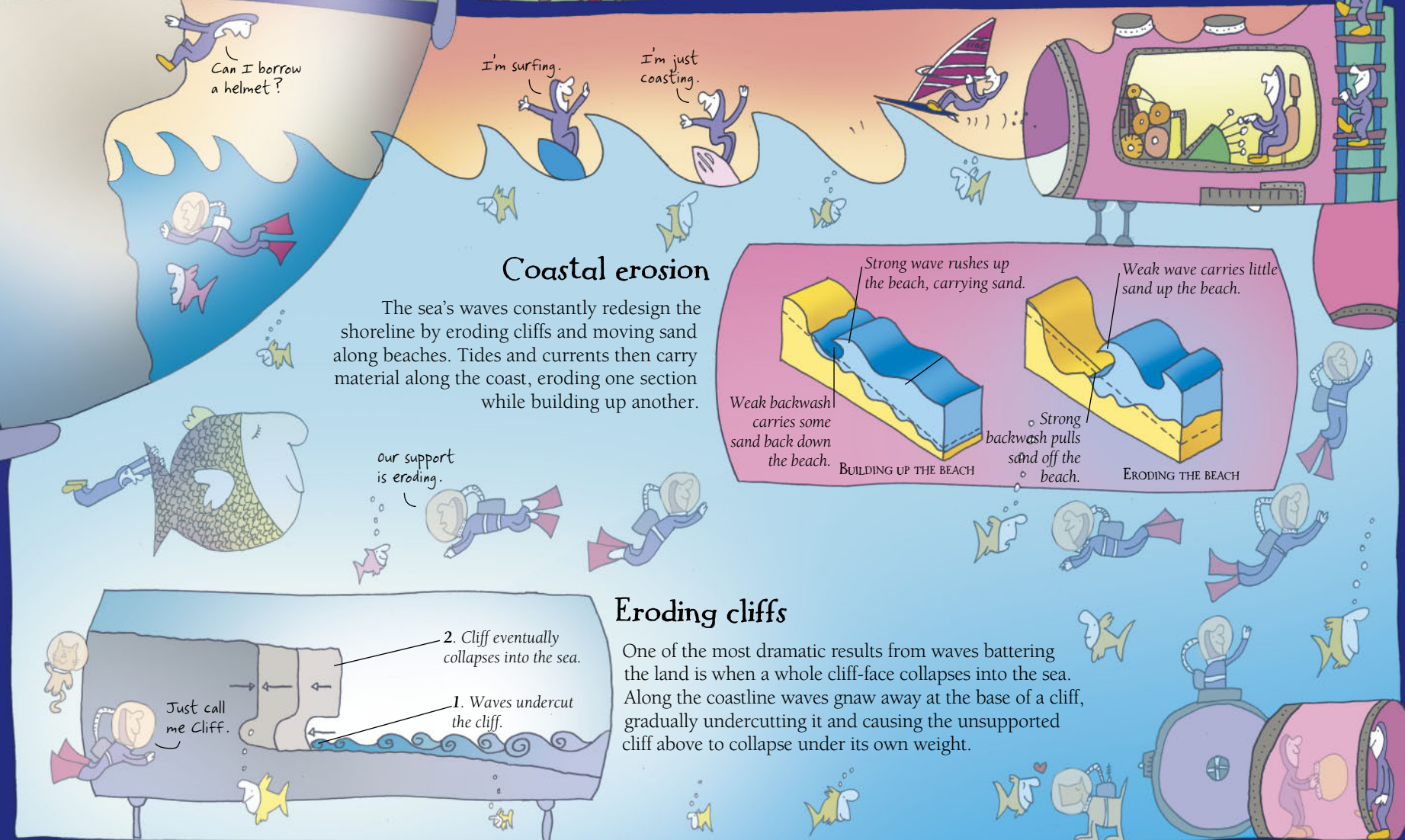
## Water erosion

When water falls on the land as rain or snow, it drains into the ground, evaporates into the atmosphere, or runs away into streams and rivers. These rivers cut V-shaped valleys into the landscape, carrying away debris that is eventually deposited at the river's mouth.



## Coastal erosion

The sea's waves constantly redesign the shoreline by eroding cliffs and moving sand along beaches. Tides and currents then carry material along the coast, eroding one section while building up another.



## Eroding cliffs

One of the most dramatic results from waves battering the land is when a whole cliff-face collapses into the sea. Along the coastline waves gnaw away at the base of a cliff, gradually undercutting it and causing the unsupported cliff above to collapse under its own weight.

# AFRICA

With the world's largest desert, longest river, second-biggest tropical rain forest, and some of the world's biggest lakes, the large continent of Africa is a world-record holder. Sitting on either side of the Equator with a mainly hot climate, Africa contains a wealth of minerals, energy supplies, and other raw materials. African farming has adapted to the uncertainties of the weather from year to year, but at times farming can be difficult due to drought and the encroaching desert.

## The Maghreb

A word meaning "west" in Arabic, the term "Maghreb" was coined by the Egyptians to refer to the lands to their west, which include Tunisia, Algeria, and Morocco.

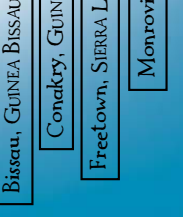
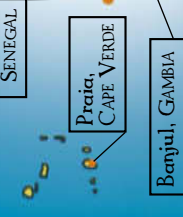
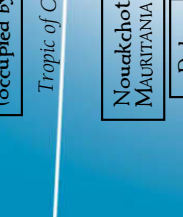
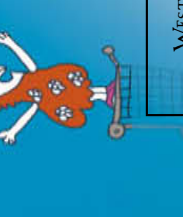
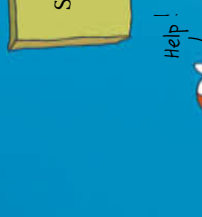
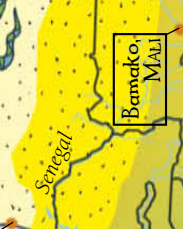
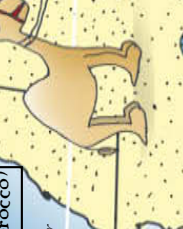
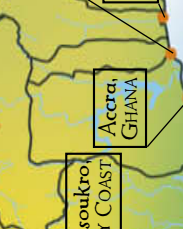
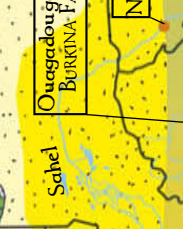
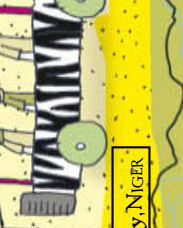
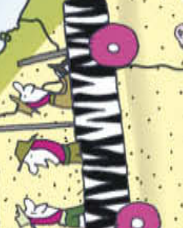
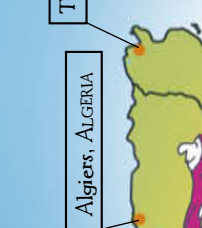
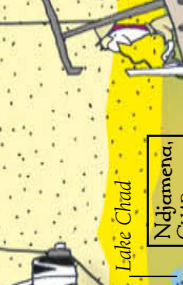
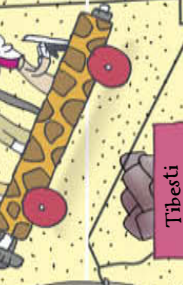
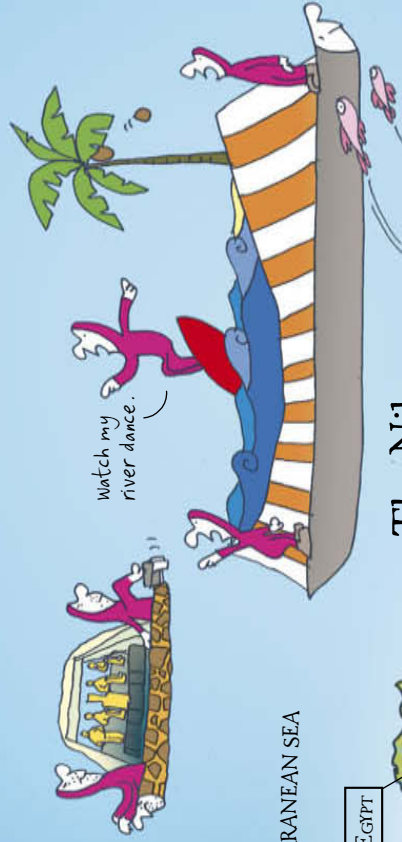
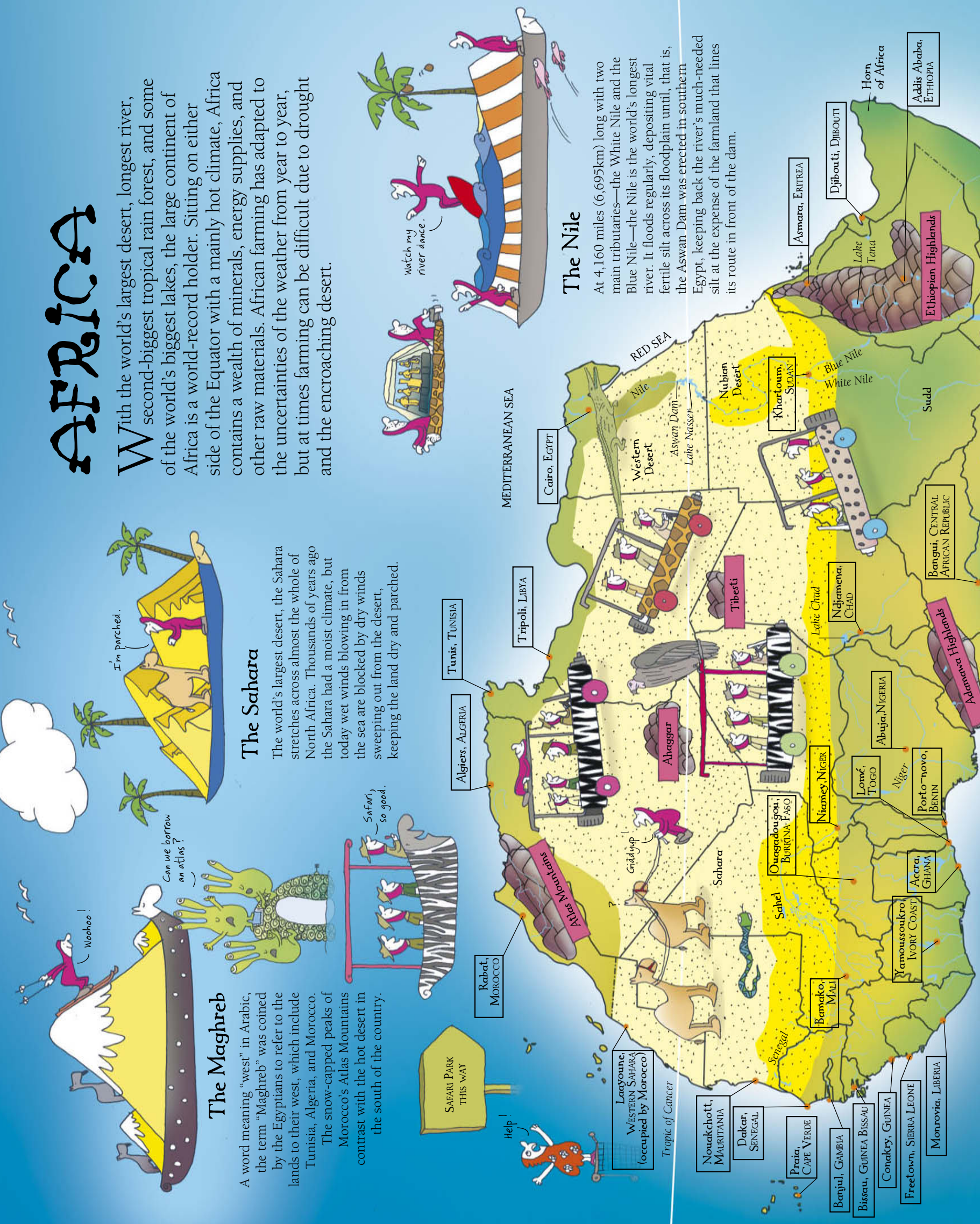
The snow-capped peaks of Morocco's Atlas Mountains contrast with the hot desert in the south of the country.

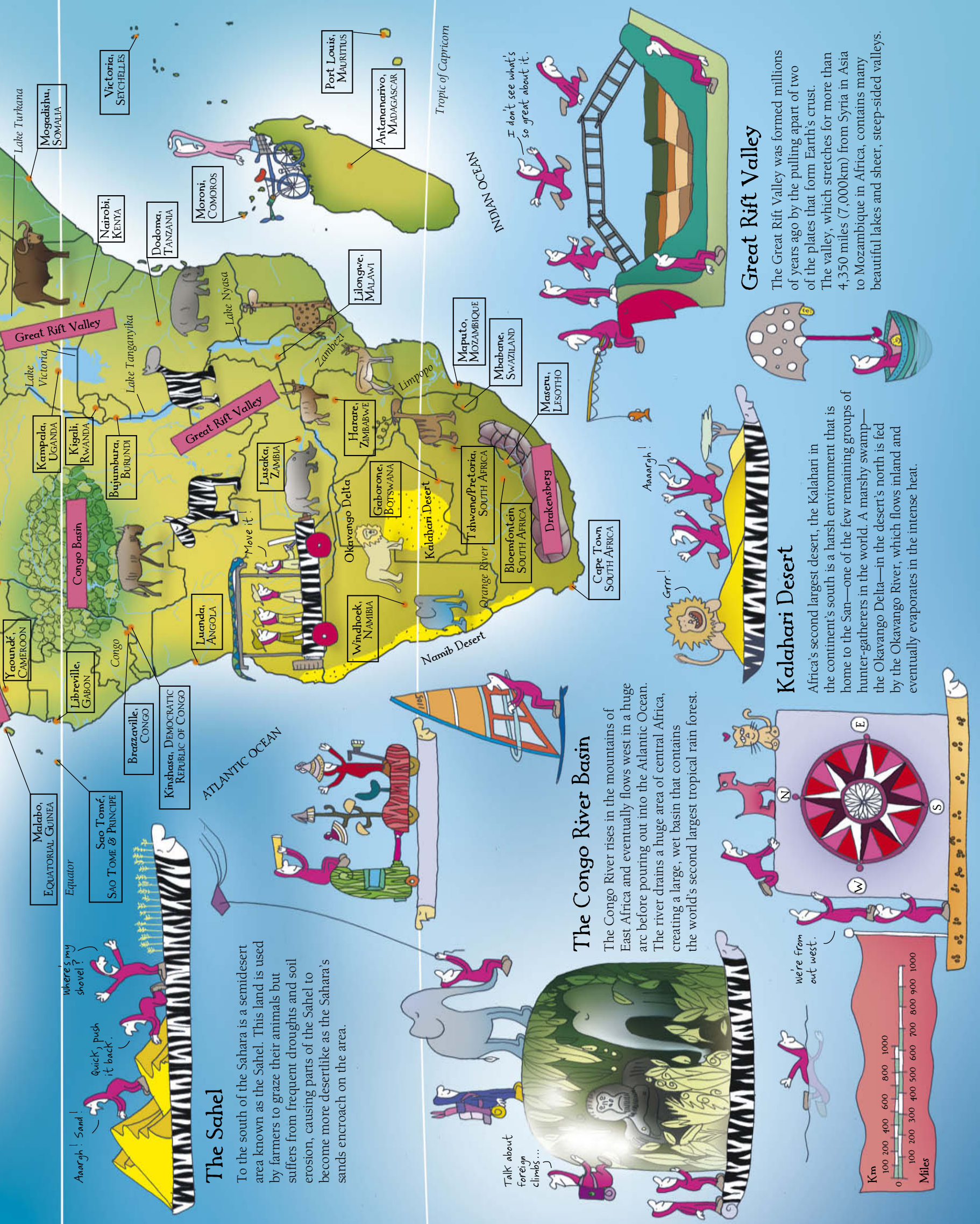
## The Sahara

The world's largest desert, the Sahara stretches across almost the whole of North Africa. Thousands of years ago the Sahara had a moist climate, but today wet winds blowing in from the sea are blocked by dry winds sweeping out from the desert, keeping the land dry and parched.

## The Nile

At 4,160 miles (6,695km) long with two main tributaries—the White Nile and the Blue Nile—the Nile is the world's longest river. It floods regularly, depositing vital fertile silt across its floodplain until, that is, the Aswan Dam was erected in southern Egypt, keeping back the river's much-needed silt at the expense of the farmland that lines its route in front of the dam.



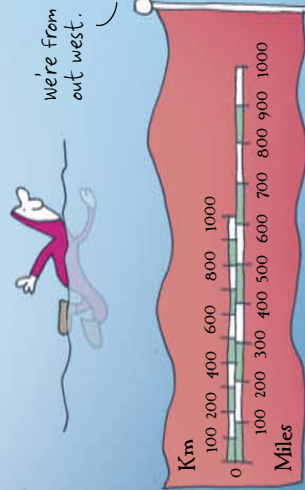


## The Sahel

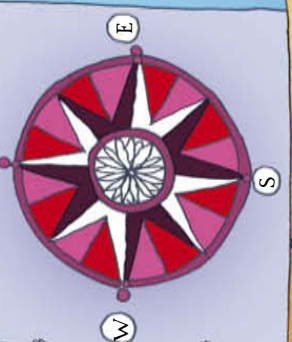
To the south of the Sahara is a semidesert area known as the Sahel. This land is used by farmers to graze their animals but suffers from frequent droughts and soil erosion, causing parts of the Sahel to become more desertlike as the Sahara's sands encroach on the area.

## The Congo River Basin

The Congo River rises in the mountains of East Africa and eventually flows west in a huge arc before pouring out into the Atlantic Ocean. The river drains a huge area of central Africa, creating a large, wet basin that contains the world's second largest tropical rain forest.

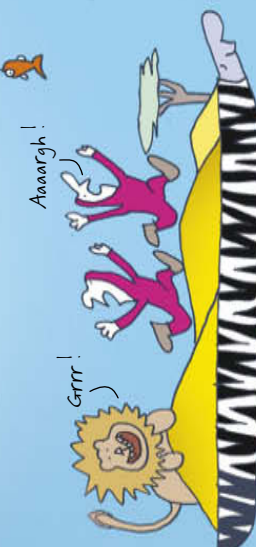


we're from out west.



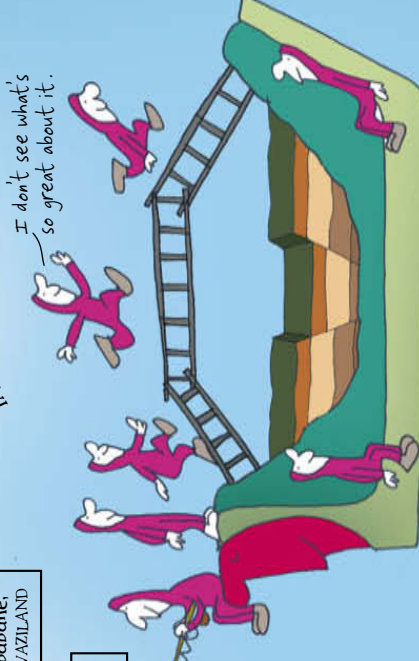
## Kalahari Desert

Africa's second largest desert, the Kalahari in the continent's south is a harsh environment that is home to the San—one of the few remaining groups of hunter-gatherers in the world. A marshy swamp—the Okavango Delta—in the desert's north is fed by the Okavango River, which flows inland and eventually evaporates in the intense heat.



## Great Rift Valley

The Great Rift Valley was formed millions of years ago by the pulling apart of two of the plates that form Earth's crust. The valley, which stretches for more than 4,350 miles (7,000km) from Syria in Asia to Mozambique in Africa, contains many beautiful lakes and sheer, steep-sided valleys.



ATLANTIC OCEAN

Namib Desert

Kalahari Desert

Indian Ocean

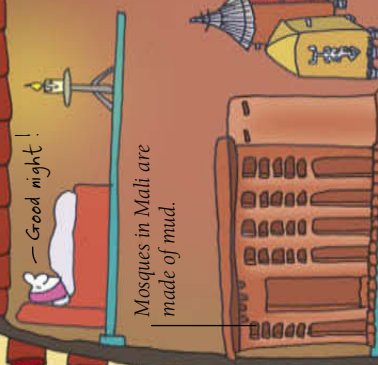
Tropic of Capricorn

Aaaargh! Sand!  
quickly, push it back.  
where's my shovel?

Talk about foreign climbs...

# AN AFRICAN ABODE

The first humans originated in Africa 1.7 million years ago and spread out from here to the rest of the world. Today, with 14 percent of the world's population spread across 53 countries, the African continent houses countless different peoples speaking many different languages, living among some of the most spectacularly varied wildlife, vegetation, and scenery on the planet.



## Burkina Faso

Humped zebu cattle, goats, sheep, and camels are the main animals kept by Burkina's farmers.

## Mali

The Dogons of Mali build distinctive tall, thin houses high up on a cliff for defense purposes.

## Mauritania

Lying to the north of the Niger Valley on the Atlantic coast, Mauritania has a major offshore fishing industry.

I'm netting a profit.

## The Maghreb

Isolated from the rest of Africa by the Sahara, the countries of the Maghreb are among the richer African nations, helped by tourism in Morocco and Tunisia, and oil and gas in Algeria.

Souk and ye shall find...



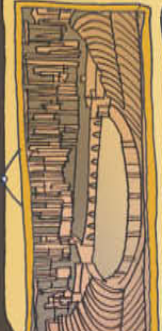
Atlas Mountains

## Morocco

The Kingdom of Morocco is famous for its historic towns, such as Fez and Marrakech, and their bustling souks, or markets.

## Phosphates

Morocco possesses about one-third of the world's reserves of phosphates, used to make fertilizers.



The ruined Roman town of Leptis Magna

## Libya

Located between the Maghreb and Egypt, Libya was once a colony of the Roman Empire.

## Tunisia

Popular with Europeans, Tunisia is an alluring destination on the Mediterranean coast for hot beach vacations.

Wish you were here?



## Algeria

Algeria is a major exporter of natural gas to Europe and has reserves of oil, iron ore, and phosphates.



## Sudan

Khartoum, Sudan's capital, sits on the banks of the Nile where its two tributaries meet.



## Egypt

The legendary Sphinx guards the pyramids of ancient Egypt at Giza.

## The Nile Valley

A lifeline for the area, with many millions of people living along its banks, the Nile has two main tributaries—the White and Blue Niles—which meet in Sudan, and then flow north through Egypt to the Mediterranean Sea.



## Suez Canal

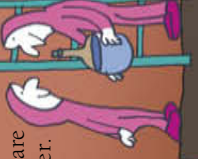
The 100-mile- (160km-) long Suez Canal connects the Mediterranean and Red Seas—a useful route for sailing between Europe and Asia.

## The Niger Valley

The Niger River rises in the central highlands of Guinea and flows northeast before taking a sharp turn to head south through Nigeria and empty out into the Gulf of Guinea. The third longest river in Africa, the Niger, like the Nile, provides important transportation links and is an important water source for the countries that line its banks.

## Niger

Large reserves of uranium, the fuel used to make nuclear power, are mined in Niger.



## Sudan's crops

Cotton, gum arabic from Acacia trees, and sesame seeds are just some of Sudan's crops.

## The Nile River

An essential water source for the locals, the Nile is also a major transportation highway.

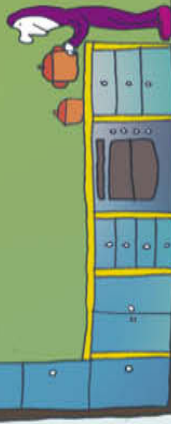
## The Far West

The extreme west of Africa is watered by the Senegal and Gambia rivers and is mainly low-lying, with grasslands in the south and semidesert conditions towards the north.



### Cape Verde

Once a Portuguese colony, many of the towns of these offshore islands have colonial-style buildings.



### Gambia

A narrow strip of land on either side of the Gambia River, Gambia is popular with tourists.

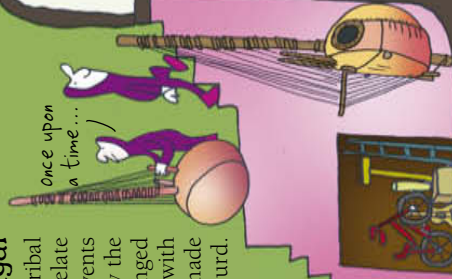
This is the life.



### Senegal

Local griots (tribal storytellers) relate stories of past events accompanied by the kora—a 21-stringed instrument with a soundbox made from a gourd.

Once upon a time...



Did I miss the story?

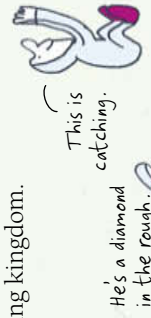
## The Guinea Coast

Extending from Guinea-Bissau in the west to Cameroon and Equatorial Guinea in the east, the Guinea Coast is low-lying and wooded, with mangrove swamps along the shore. The origin of its name is not clear, but it is thought to come from Jenne—an important 8th-century trading kingdom.



### Guinea-Bissau

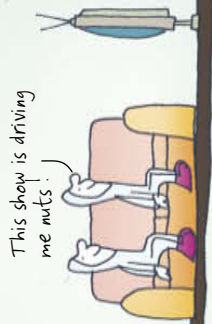
Cashews, groundnuts, coconuts, and rice are the main crops grown by Guinea-Bissau's farmers, while its main natural resources are fish and timber.



Cleaning up your act?

He's a diamond in the rough.

This is catching.



This show is driving me nuts!

### Guinea

More than 30 per cent of the world's bauxite—used to make aluminum—is mined in Guinea, as well as gold, diamonds, and iron ore.



I'm rich!

### Liberia

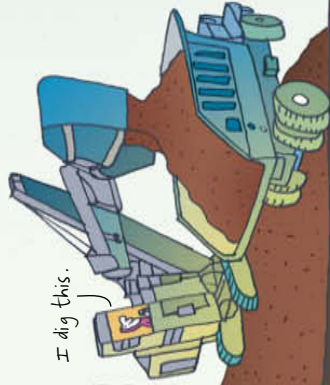
Founded in 1847 as a home for freed U.S.

slaves returning to Africa, Liberia has plantations of rubber trees that are tapped for their latex—the sap that is used to make rubber.

I'm otherwise engaged.

### Sierra Leone

Rich in diamonds, Sierra Leone provides many of the gems used in engagement rings and other pieces of jewelry.



I dig this.



More cocoa?



Don't be cuckoo.

## The Ivory and Gold Coasts

These two stretches of the Guinea Coast were named by Europeans for the products they traded there. The region is tropical and fertile, allowing a wide range of crops to be grown.

First!



Copy cat!

This is the life.

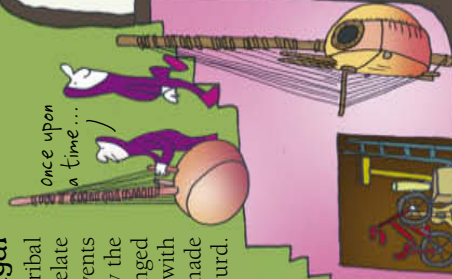
### Gambia

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Once upon a time...



Did I miss the story?

### Benin

A mainly agricultural nation, Benin's people live off the land and catch fish in its rivers or off its narrow coastline.

There may be a catch.



### Togo

This long, thin country is self-sufficient in basic foodstuffs, growing corn, yams, rice, and cassava to eat, and cocoa, coffee, and cotton to export.

Pass the milk.



## Nigeria

Africa's most populated nation and the 10th most populated country in the world, Nigeria is home to many diverse groups of peoples. Approximately 250 different ethnic groups live here, speaking numerous languages, although English—the former colonial language—is the only official language.

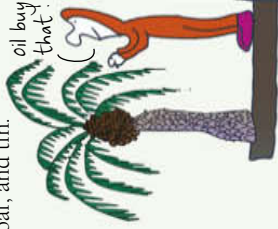
What?



### Oil wealth

Nigeria is one of Africa's biggest producers of oil and also has vast reserves of natural gas as well as iron ore, bauxite, coal, and tin.

oil buy that!



### Ivory Coast

The world's biggest producer of cocoa, the Ivory Coast also exports coffee and timber.



### Copycat building

The massive Roman Catholic basilica of Yamoussoukro is modeled on St. Peter's Basilica in Rome.

## Central Africa

Extending from the hot, dry Sahara in the north down to the hot, wet, tropical rain forests of Cameroon and Gabon in the south, Central Africa has extensive oil and mineral reserves and some striking wildlife.

### Chad

Chad shares its name with the shrinking lake where Cameroon, Niger, Nigeria, and Chad all meet. Due to serious droughts, Lake Chad today is just a tenth of its original size.

That's a serious situation.



SHRINKING LAKE CHAD

This is my log book.

### Cameroon

Heavily wooded Cameroon boasts quality hardwoods, such as ebony, mahogany, and teak, which are greatly sought after by Western furniture-makers.

I'm just going with the flow.

### Central African Republic

Landlocked with few roads and no railways, the Central African Republic largely relies on the Ubangi River as its main transportation link, which flows along the southern border of the country to join the Congo River.

### Equatorial Guinea

This tiny country is mainly tropical rain forest and consists of five offshore islands and a rectangle of land between Cameroon and Gabon.

### Gabon

Two-thirds of Gabon is untouched tropical rain forest, and huge national parks have been set up to protect this important habitat.

### Sao Tome and Principe

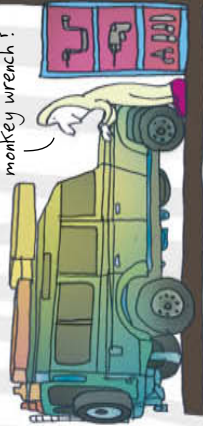
Largely volcanic, this two-island republic depends on cocoa exports for almost all its income.

What's that monkeys business?

## East Africa

The five nations of East Africa boast some of the finest wildlife in Africa, with massive game reserves that attract tourists from all around the world.

Where's the monkey wrench?



### Kenya

Thousands of tourists visit Kenya each year to view the spectacular array of wild animals in their natural habitats.



This is wild!

### Somalia

The Boswellia trees that grow in northern Somalia are an important source of frankincense—a resin used to make expensive incense and perfume.

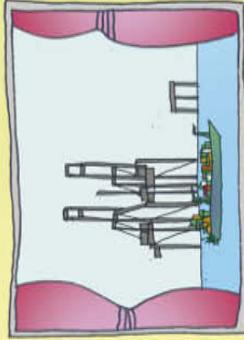
Smells lovely.

### Horn of Africa

So-named because it is shaped like an animal's horn, the Horn of Africa is the easternmost part of the continent's mainland, jutting out into the Indian Ocean. It is largely desert, although Ethiopia and Eritrea are both mountainous.

### Ethiopia

One of the oldest Christian nations on Earth, Ethiopia possesses 11 remarkable cross-shaped churches, each cut out of the solid rock and dating back to the 1200s.



### Djibouti

Unusually, Djibouti is named after its capital city, which is a major port in the Red Sea.

### Eritrea

Asmara, Eritrea's capital, boasts many fine Italian-style modern buildings, built when it was an Italian colony during the 20th century.

Hello? Can you hear me now?

### Democratic Republic of Congo

This vast, tropical nation has massive mineral wealth, with large quantities of coltan, which is essential for the production of mobile phones.

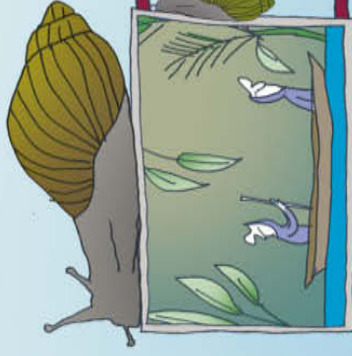
### Congo

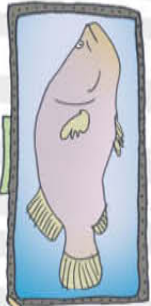
The smaller and more northern of the two nations that share a name, Congo is home to some extraordinary wildlife, including the immense Giant African Snail, which can grow up to 13in (33cm) long.

### The Congo Valley

The Congo is Africa's second-longest river after the Nile. For most of its length, this mainly wide, voluminous river has no rapids or waterfalls, making it easily navigable as well as a great source of fish.

This is a room with a view!





### Uganda

To help boost fish stocks and provide sport for Uganda's tourists, Nile perch were introduced into Lake Victoria. Unfortunately, they ate all the other fish and are now simply a great menace! That's one fiendish fish.



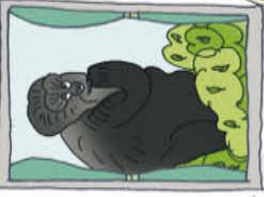
Mt. Kilimanjaro



### Tanzania

Fossilized remains of the earliest humans were found in Tanzania's Olduvai Gorge—proof that the first humans lived in Africa.

**Rwanda**  
One of the mountain gorilla's last refuges is Rwanda's Volcanoes National Park.



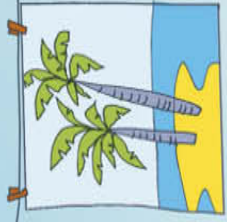
### Burundi

Fertile land is scarce in Burundi, so most farmers work small plots of land that are just big enough to feed a family.



## Central Southern Africa

A broad, grassy plain with tropical forests to the north runs from Angola on the Atlantic coast across to Mozambique on the Indian Ocean. The land is rich enough to provide food for all and teems with wildlife, some of which is protected in game reserves and national parks.



### Mozambique

Mozambique has some of the best unspoiled beaches in Africa, as well as many national parks.



### South Africa

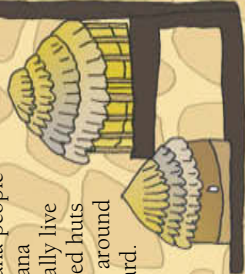
The massive Kruger National Park has more than 130 different species of mammal, including the "big five": lions, African buffalo, leopards, rhinoceroses, and elephants.



I'm an armchair explorer.

### Botswana

The Tswana people of Botswana traditionally live in thatched huts arranged around a courtyard.



### Namibia

Although it is by the sea, the Namib Desert is hot and dry with some of the biggest sand dunes in the world.



### Tourism

The beautiful city of Cape Town, at the very tip of Africa, is dominated by Table Mountain.



### Lesotho

The lofty lands of Lesotho are all above 3,300ft (1,000m).



### Swaziland

The Kingdom of Swaziland relies on sugar cane as its main export.



## Southern Africa

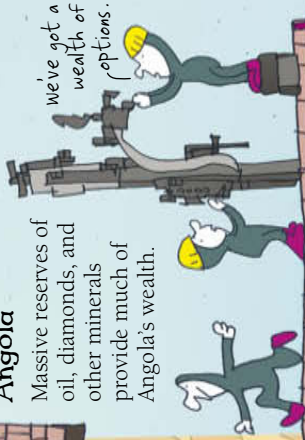
The region of southern Africa is dominated by South Africa, which has some of the continent's richest natural resources, notably minerals such as gold and diamonds, and is the richest and most developed economy in Africa. The other countries that make up this area are largely agricultural with much fertile farmland and pasture.



I've got sand in my shoes!

### Angola

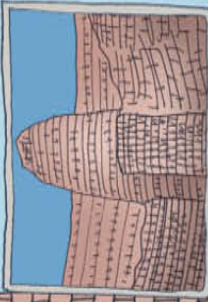
Massive reserves of oil, diamonds, and other minerals provide much of Angola's wealth.



We've got a wealth of options.

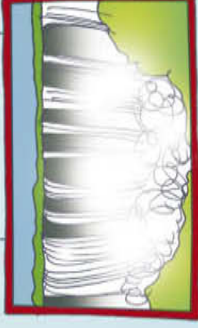
### Zimbabwe

In the Bantu language, Zimbabwe means "stone houses" and gets its name from the stone buildings of Great Zimbabwe—an ancient trading city.



### Zambia

The Zambezi River forms the natural boundary between Zambia and Zimbabwe, dropping a spectacular 420ft (128m) over the magnificent Victoria Falls.



### Mauritius

Unique to Mauritius, the flightless dodo was hunted to extinction.

Don't say it!



You're as dead as a...

### Comoros

One of the main crops on the Comoros islands is vanilla, used to flavor ice cream and cakes.



### Madagascar

The world's fourth largest island, Madagascar is home to an unusual range of wildlife, including the lemur, which is found nowhere else in the world.

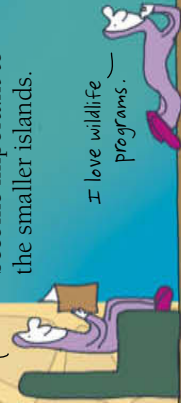


I love wildlife programs.

## The Indian Ocean

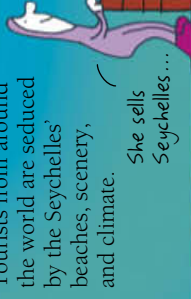
Separated from mainland Africa, the islands of the Indian Ocean have a unique array of wildlife. Most people live off the land or sea, and tourism has become important to the smaller islands.

No man is an island.



### Seychelles

Tourists from around the world are seduced by the Seychelles' beaches, scenery, and climate.



She sells Seychelles...

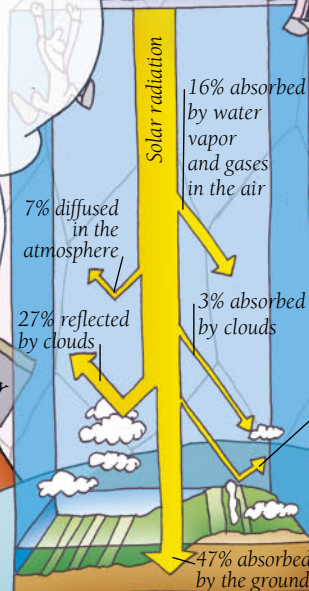
# WEATHER & CLIMATE

An area's weather is what happens from day to day. It can be unpredictable and change quickly, whereas climate is defined by the typical weather recorded in an area for a period of 30 years or more. Climate is affected by latitude, height above sea level, the region's prevailing wind, and the circulation of ocean currents that warm or cool the air around them.

I'm full of energy.

## Solar energy

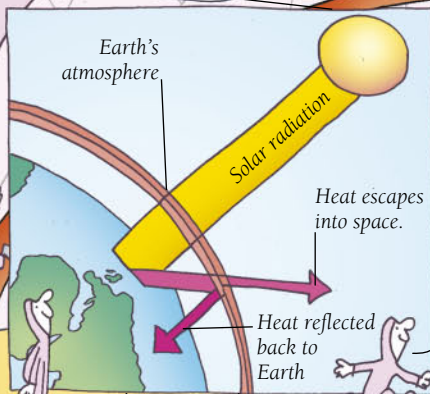
As the Sun's rays beam down through Earth's atmosphere toward the ground, they lose more than half their energy, which remains in the atmosphere or is reflected back into space.



I've got a sunny disposition.

## Greenhouse effect

Gases in Earth's atmosphere trap the Sun's heat, just like a greenhouse. Some human activity releases more "greenhouse gases" into the atmosphere, increasing the greenhouse effect and affecting Earth's weather, which could result in climate change.

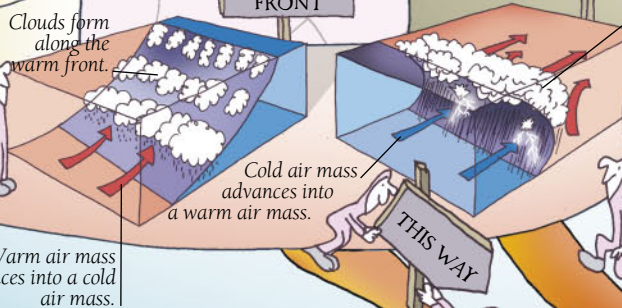


What an effective greenhouse.

This way!

## Everyday weather

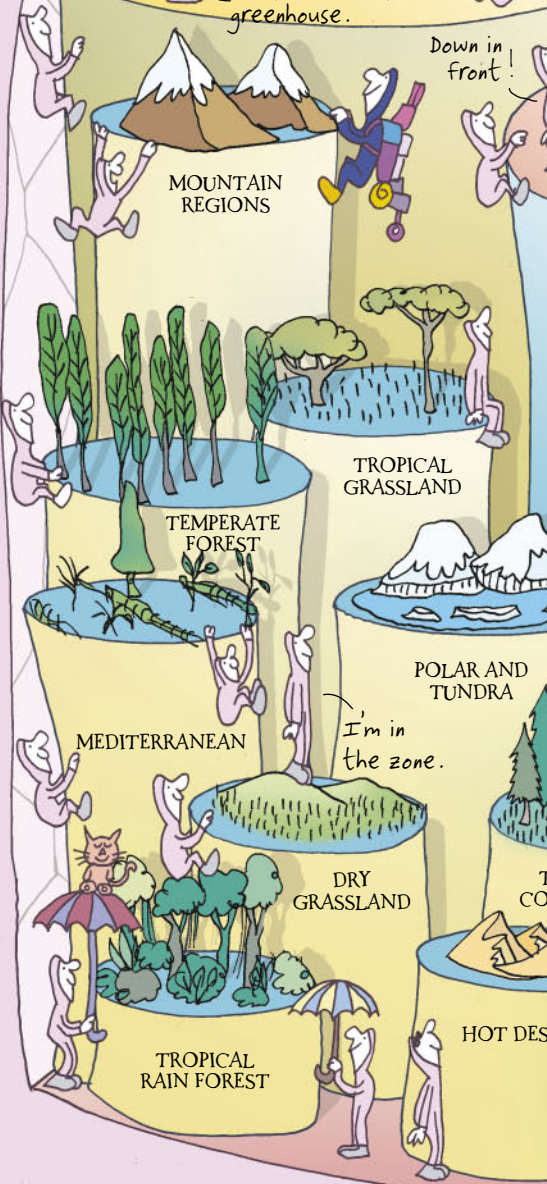
Air masses in the atmosphere affect our day-to-day weather. As they pass overhead, they bring stable, unchanging weather. However, when one air mass collides with another, it causes a change in the weather along the boundary, or front, between them.



I'm way out in front!

## Vegetation zones

Plants and animals vary massively from region to region across Earth, strongly influenced by climate. Scientists have identified nine basic environments known as biomes, each of which has a typical array of plants and animals that have adapted to survive within it.



I'm in the zone.

It's a perfect storm!

## Storms

Severe weather, including strong winds, driving rain, and thunder and lightning, is often called a storm, although a storm is scientifically defined as an event where winds reach more than 55mph (88kph)—Force 10 on the Beaufort scale.

## Thunder and lightning

A flash of lightning from an electrically charged thundercloud heats the air and causes it to expand, creating a clap of thunder.

## Hurricanes

These hugely destructive weather systems are a mass of violent tropical storms that cluster around a ring of low pressure over water.

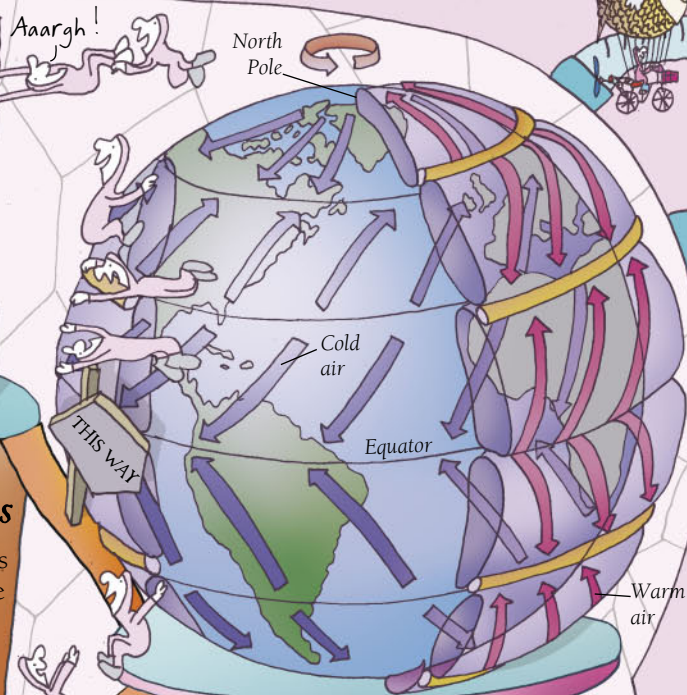
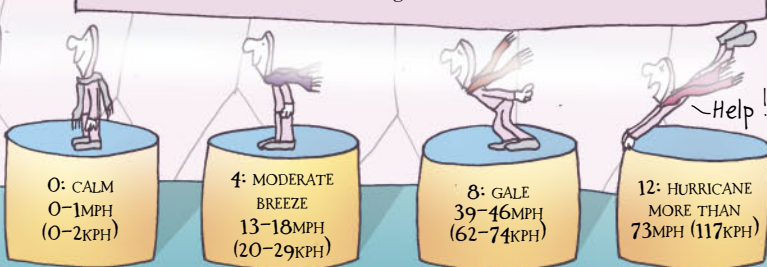
LOOK UP



## THE BEAUFORT SCALE

0: Calm	4: Moderate wind	8: Gale
1: Light air	5: Fresh breeze	9: Strong gale
2: Light breeze	6: Strong breeze	10: Storm
3: Gentle breeze	7: Near gale	11: Violent storm
		12: Hurricane

This is a breeze.



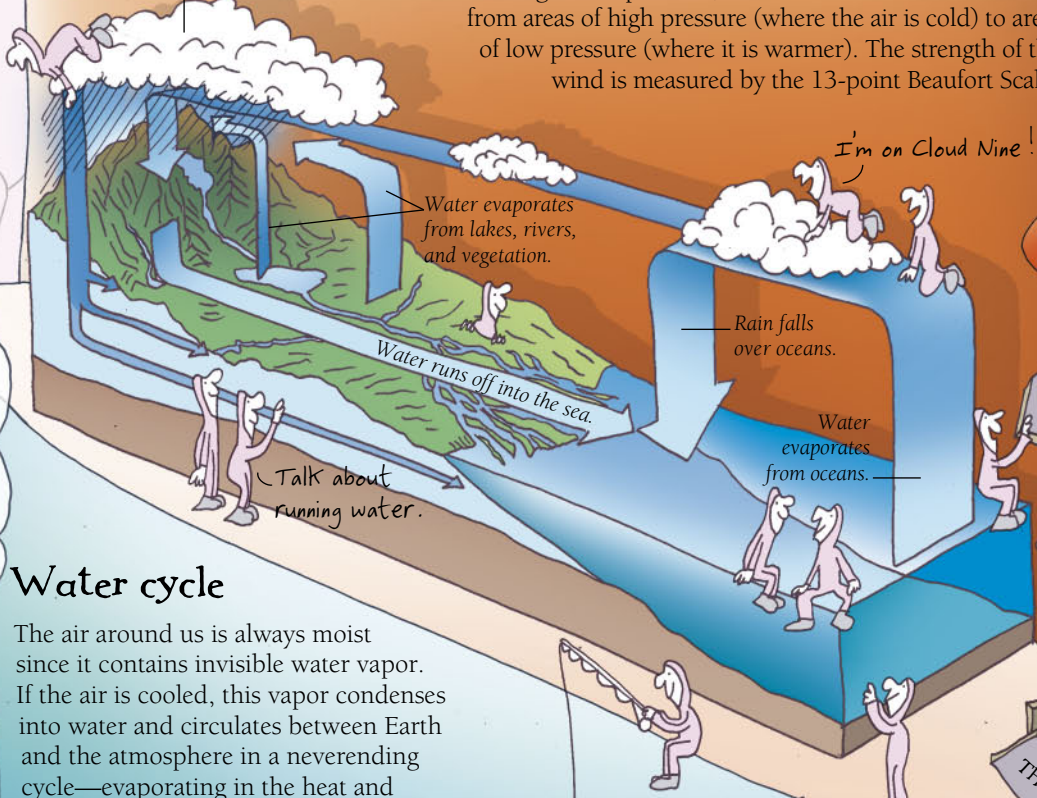
## Winds

As air moves between hot and cold regions, it causes a change in air pressure, which creates wind. Winds move from areas of high pressure (where the air is cold) to areas of low pressure (where it is warmer). The strength of the wind is measured by the 13-point Beaufort Scale.

## Wind circulation

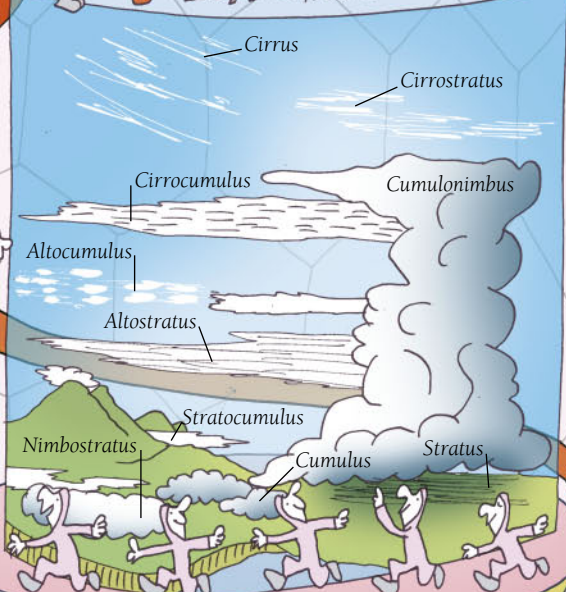
As Earth rotates it causes the world's winds to circulate. This global corkscrew of circulating air moves warm air from the Equator to the Poles, and cold air in the opposite direction, thus maintaining a balance of temperatures around the world.

Clouds form as water condenses, and rain and snow fall on land.



## Water cycle

The air around us is always moist since it contains invisible water vapor. If the air is cooled, this vapor condenses into water and circulates between Earth and the atmosphere in a neverending cycle—evaporating in the heat and returning as rain or snow in the cold.



## Fog

Low-lying clouds of water droplets, known as fog, form when warm, moist air is cooled by the ground below. However, fog can also form on cold, calm nights, as heat absorbed by the ground during the day radiates back into the air, causing the air to heat up but then cool quickly to form fog.

Got your head in the clouds again?

Help!

This is clouding my thinking...

## Tornadoes

Tornadoes form below thunderclouds as whirling windstorms, and can bring devastating winds of up to 250mph (400kph).

## Clouds

When water vapor in the air is lifted high up in the sky, it cools and condenses into a cloud. There are 10 basic types of clouds, which form at different heights in the atmosphere, and hardly a day goes by when there isn't a cloud in the sky.

# EUROPE

Europe is the world's second-smallest continent, yet it packs in 44 separate countries, including two—Turkey and the Russian Federation—that straddle the border with Asia. The continent is densely packed, with most people living in the crowded towns and cities. Its land is generally fertile, although broken up in places by imposing mountain ranges and great rivers.

## Scandinavia

The cold, northern European countries of Norway, Denmark, and Sweden together form Scandinavia, although the term is usually used to include both Finland and Iceland, too. While both Sweden and Finland are low-lying with many lakes and forests, Norway is mountainous, Iceland volcanic, and Denmark flat and very fertile.

## North Sea

Dividing Britain from mainland Europe, the North Sea was once a rich fishing ground and its basin a massive reservoir of oil and natural gas. Today, overfishing has significantly depleted its fish stocks, and easily accessible reserves of oil and gas are also running out.

## Alps

The collision of the African and European continents that began 65 million years ago pushed up the Alps and other mountains of southern Europe. The Alps form a natural boundary between North and Mediterranean Europe, but are now traversed by many road and rail tunnels.



Has anyone seen my hat?

Brrr...

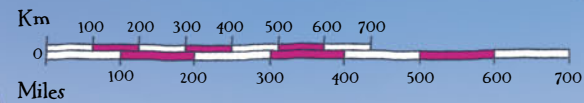
Got any oil?

Go fish!

Careful!

Need a hand?

Every little bit alps.





## North European Plain

The vast North European Plain stretches the width of the continent from the Fens in England to the Ural Mountains in Russia. The flat, fertile plain never rises more than 1,000ft (300m) above sea level and is used to grow wheat and other crops.

## River Danube

One of Europe's longest rivers and an economic lifeline for eastern Europe, the Danube passes through or alongside Germany, Austria, Slovakia, Hungary, Croatia, Serbia, Romania, Bulgaria, Ukraine, and Moldova, often forming a natural border between countries, before emptying out into the Black Sea.

## Mediterranean Sea

The popular tourist destination of southern Europe, with its attractively warm climate, lies along the Mediterranean Sea. This almost completely landlocked expanse of water is connected to the Atlantic Ocean through a single narrow channel: the 8-mile- (13km-) wide Strait of Gibraltar.

KARA SEA

BARENTS SEA

WHITE SEA

Helsinki, FINLAND

Tallinn, ESTONIA

Riga, LATVIA

Vilnius, LITHUANIA

Minsk, BELARUS

Kiev, UKRAINE

Chisinau, MOLDOVA

Bucharest, ROMANIA

Sofia, BULGARIA

ATHENS, GREECE

Asian Turkey

SEA OF AZOV

BLACK SEA

AEGEAN SEA

Ural Mountains

North European Plain

Moscow, RUSSIAN FEDERATION

Caucasus

Carpathian Mountains

Balkan Mountains

Volga

Dnieper

Don

Danube

Western Dvina

Northern Dvina

Lake Ladoga

Lake Onega

Asiatic Russian Federation

This way for Cyprus

Asian Turkey

Are we missing a piece?

I'm puzzled.

I'm all at sea.

This is the life.

Easy does it!

I need a longer tape measurer.

It's plain to see.

I think I've lost a piece.

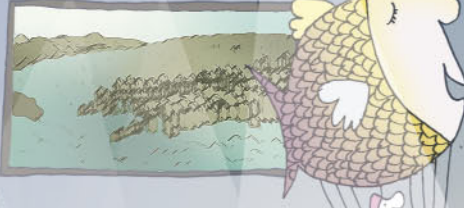
out of my way!

Almost there... That gives me piece of mind.

## Northern Ireland

The country boasts an array of beautiful scenery, including the dramatic Giant's Causeway—a group of basalt columns formed by volcanic activity.

Stop! You're not supposed to take the ball. It's art!  
Nonsense. out my way.



## Ireland

The island Republic of Ireland lies to the west of the UK. Famous for its traditional folk music and a long line of distinguished poets, playwrights, and authors, Ireland is a very fertile country with major food processing and high-tech industries.

I'm jockeying for position.



## Horse training

Ireland is world-famous for its breeding and training of some of the best racehorses.

## Guinness

A dark, dry stout beer, Guinness is one of the national drinks of Ireland.



## Wales

Traditionally livestock farmers, the Welsh are passionate about rugby, which is their national game.

Baa?



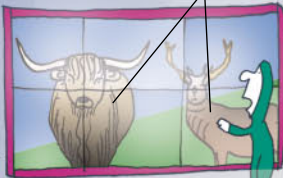
## Scotland

One of Scotland's famous and most recognized traditions is the wearing of the kilt by Scotsmen.

Do my knees look big in this?



Shaggy highland cattle and red deer are common sights in the Scottish Highlands.



ENGLISH PLAYWRIGHT WILLIAM SHAKESPEARE

## England

Tourists flock to the UK's capital, London, to visit such famous structures as the London Eye and Big Ben.



## The United Kingdom

The countries that make up the UK are all ruled over by the same monarch. While being different in culture and character, all four share a common language, government, and currency.

## Baltics

These three Baltic states are largely flat, wooded, and agricultural, although they are developing high-tech industries. In 2007, Estonia became the first country in the world to hold a national Internet election.

Does this look wooden?



Pine forests provide timber for houses and furniture, and wood-pulp for paper.



## Estonia

Tallinn, Estonia's capital, is an important seaport and high-tech center with a beautiful medieval Old Town.

I see the cow has come home.



## Latvia

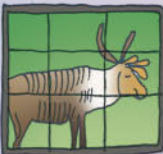
Fertile soils and a flat landscape make Latvia ideal for farming, particularly dairy cattle and pigs.



## Lithuania

Baltic amber—the fossilized resin of conifer trees—is world-famous and is used to make jewelry.

Sami people herd reindeer in Arctic Norway, Sweden, and Finland.



## Finland

In recent years Finland has developed its high-tech industries, producing Nokia mobile phones and other items.



LITTLE MERMAID STATUE, COPENHAGEN HARBOR, DENMARK

## Denmark

The Øresund bridge between Denmark and Sweden is the longest combined road-and-rail bridge in Europe.

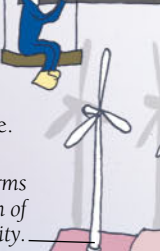


Offshore wind farms provide one-fifth of Denmark's electricity.



## Sweden

Each winter, the Torne River's frozen waters are used to make an ice hotel, which then melts during the spring thaw.



The stave churches of Norway and Sweden are made from wood—a common building material.



## Norway

Norway's mountainous countryside is ideal for producing hydroelectricity, while North Sea oil makes the country self-sufficient in fuel.

This puts a spring in my step.



## Iceland

About one-tenth of volcanic Iceland is covered with glaciers. There are also many hot springs.

# EUROVISION ART SHOW

A treasure-trove of art and historic buildings, diverse cultures and peoples, Europe's 44 independent countries include the world's smallest and largest. Many of these nations are members of the European Union (EU)—an economic and political union founded in 1957 that now covers most of western, central, and southern Europe.

## Scandinavia

The five prosperous Scandinavian countries in the north of Europe have much common history and culture between them, forging close links to work together on issues of common concern.





### Tour de France

Every year, cyclists take to the roads to compete in the Tour de France, watched by thousands of eager spectators.

**Wine**  
French vineyards produce a wide range of quality wines that are exported around the world.



### Monaco

The tiny principality of Monaco lies on the Mediterranean coast. Every year, Formula 1 cars race around its narrow streets during the Grand Prix.

### France

The largest country in western Europe, France is famed for its fine foods and wines, an inspiring fashion industry, its historic chateaux or grand houses, and some of the most stunning countryside.

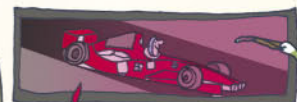


SKIING IN THE FRENCH ALPS



### Eiffel Tower

Named after its designer, Gustave Eiffel, and erected in 1889 to mark the centenary of the French Revolution, the Eiffel Tower dominates the Paris skyline.

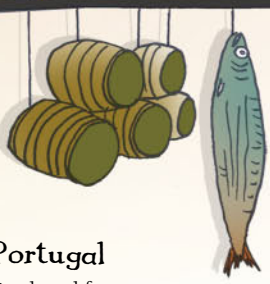


This is grand.

A winning formula!

### Sardines

The main catch of Portuguese fishermen is sardines, a local delicacy.



Two heads are better than one.

### Portugal

Produced from grapes grown in the north of the country and stored in casks, or "pipes," made from the local oak trees before bottling, port is Portugal's most famous export.

This is the first port of call.

### Andorra

This tiny nation is unique in having two joint heads of state—the President of France and the Bishop of Urgell in Spain.



### The Low Countries

The low-lying nations of Belgium, the Netherlands, and Luxembourg—their joint names often abbreviated to Benelux—are among the richest nations in Europe and are very crowded, with most people living in the many historic towns and cities.

### Belgium

The Belgian capital, Brussels, is a truly international city since it is also capital of the EU.

Are these french fries or Belgian fries?



### Luxembourg

The tiny duchy of Luxembourg has three official languages—French, German, and Luxembourgish—and is a major international banking center.



### The Iberian Peninsula

Across the Pyrenees Mountains from France lies the Iberian Peninsula, a largely rocky region between the Atlantic Ocean and Mediterranean Sea, occupied by Spain and Portugal.

### Modern art

The strikingly modern Guggenheim Museum in Bilbao, Spain, designed by Frank Gehry, attracts thousands of tourists.

Flamenco dancing originated in 15th-century Andalusia.



### The Netherlands

With one-quarter of its land below sea level and four major rivers running through it, the Netherlands is kept high and dry by a massive system of dykes and drainage canals.



### Germany

The most populous country in Europe aside from Russia, stretching from the North Sea to the Alps, Germany is Europe's major economic and industrial power.



RIVER RHINE

That's one fine Rhine.



### Poland

A large, mainly low-lying country at the heart of Europe, Poland has major shipbuilding, electronic, and steel industries, although about a quarter of the workforce is employed on the land.



### Religion

The Poles are devout Roman Catholics, and many Catholics make a pilgrimage to the shrine of the Black Madonna at Czestochowa, which was painted by St. Luke the Evangelist. Legend has it that the painting protects the city.

Is it ready? There's still a couple of bugs.

### Engineering

Germany is famed for its engineering, producing superb machines, such as steadfast cars, and industrial products.



### Mad castles

Legendary King Ludwig II of Bavaria built three extraordinary, fairy-tale castles in the hills of southern Germany.



FRANKFURTER SAUSAGES AND SAUERKRAUT

Sweet wheat!



Toy boat, toy boat, toy boat...

GDANSK SHIPYARD



## Greece and Bulgaria

Greece and Bulgaria are Orthodox Christian nations and both use the Cyrillic script to write rather than the Latin script common to most other European countries.



THE PARTHENON, ATHENS

### Greece

More than 2,500 years ago, Greece was the center of European civilization. Many famous buildings survive from that period.

### The Olympics

Ancient Greece was the home of the Olympic Games. Revived in 1896, they were recently hosted by Greece again in 2004.



**The Black Sea**  
Bulgaria's Black Sea coast is a major tourist destination for western Europeans and Russians anxious to enjoy some summer sun.

### Bulgarian roses

The petals of Bulgaria's roses are harvested to produce the rose oil used in perfume.

A rose by any other name...

He rose to the occasion.

It's picturesque.

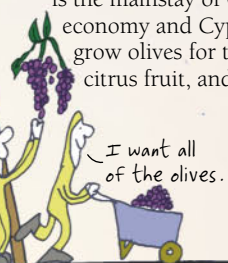


### Malta

Sitting at the narrowest point of the Mediterranean between Italy and North Africa, Malta is an important harbor for merchant and naval shipping.

### Cyprus

Aside from tourism, farming is the mainstay of Cyprus's economy and Cypriots grow olives for their oil, citrus fruit, and grapes.



### Mediterranean Islands

The Mediterranean Sea contains two island republics—Malta and Cyprus. The latter is actually located in Asia, but is European in outlook and a member of the EU.



I'm a man of letters.

### San Marino

The world's oldest republic, San Marino generates most of its income through the sale of postage stamps.



### Vatican City

The world's smallest independent state lies in central Rome. It is ruled by the pope and is the headquarters of the Roman Catholic Church.



### Slovenia

This largely rural nation sits across some of the major road and rail links between west and east Europe, and is attracting increasing numbers of tourists to its Alpine scenery.

### Italy

Boot-shaped Italy, kicking into the Mediterranean Sea, is renowned for its wealth of beautiful medieval churches and palaces. Its capital, Rome, once commanded a mighty empire that controlled most of western Europe.



### Roman ruins

Italy is brimming with remains from the Roman Empire, including the Colosseum in Rome, where gladiators once fought.

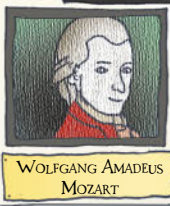


### Opera

Originating in Italy in the 16th century, opera is still the country's most popular musical form.



Come to Austria for the sound of music.



Blue Danube—a famous waltz by Johann Strauss

### Austria

The birthplace of Mozart and the Strauss family, Austria is famous for its music, as well as its delectable Sacher Torte chocolate cake.

### Liechtenstein

As asserted in its national anthem, the tiny Principality of Liechtenstein sits on the River Rhine, between Switzerland and Austria.



### Switzerland

Timepieces are a major export industry for the Swiss, who are renowned for their precision engineering.



### The Alps

Four states nestle in the peaks of the Alps—Europe's highest mountain chain—of which Switzerland and Liechtenstein are officially neutral, meaning they are not allied with any other nations.



## Central Europe

These landlocked central European nations are highly industrialized, making a wide range of manufactured goods such as cars and other machines, as well as growing much agricultural produce.



### Czech glass

The Czech Republic is famous for its quality Bohemian Crystal glassware and decorative arts.

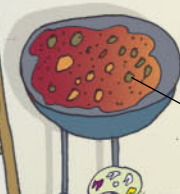
### Slovakia

The Tatra Mountains of northern Slovakia are attracting increasing numbers of tourists to their ski resorts.



### Hungary

Budapest, the capital of Hungary, was once two cities, with Buda and its magnificent castle on one side of the River Danube and Pest on the other.



Goulash soup—Hungary's national dish

### Czech Republic

Prague, the Czech capital, is one of Europe's most beautiful capital cities, sitting on the River Vltava and dominated by its historic castle.



# The Balkans

With the exception of Albania, the countries of the Balkans are relatively young, having emerged as independent states from 1991 onward. So far, none are members of the EU.



## Croatia

The Adriatic coastline of Croatia contains many old towns, such as Dubrovnik, popular with tourists and sailors.



## Bosnia

Originally built in 1566 and traditionally used as a diving platform for young men to prove their bravery, Bosnia's famous Mostar Bridge was restored in 1994.

## Macedonia

The capital, Skopje, of this mountainous, landlocked republic lies in an earthquake zone and has been destroyed four times in its history.



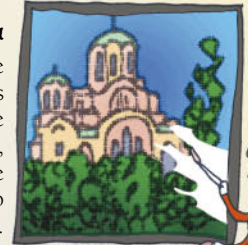
Top spot!

## Montenegro

Montenegro ("Black Mountain") became one of the world's newest states after gaining independence from Serbia in 2006.

## Serbia

The Serbs are Orthodox Christians and share a language with the Croats, although they use different scripts to write it down.



Right on the mark.

ST. MARK'S CHURCH, BELGRADE, SERBIA

## Albania

Known by its people as "the land of the eagles," Albania is largely agricultural with most Albanians working on the land for a living.



Look what's crapped up!

Mine's still an underground phenomenon.

Fifth time's the charm!

## Romania and Moldova

Once united as a single country, Romania and Moldova are surrounded by mainly Slav-speaking and Cyrillic-writing states, yet they speak and write a language (Romanian) more like French or Italian.

## Moldova

The rich, black soil of Moldova is ideal for growing cotton, grapes, and sunflowers, the seeds of which are a valuable export crop.



## Ukraine and Belarus

Both Ukraine—Europe's second largest country—and Belarus were once part of Russia. They gained their independence in 1991 and are largely flat and agricultural, although Ukraine also has substantial heavy industries.



MOTHERLAND STATUE, VOLGOGRAD, UKRAINE

## Romania

The Carpathian Mountains separate Transylvania, home of the legendary Count Dracula, from the rest of the country, which lies along the Danube River valley.



SKIING IN THE CARPATHIANS

Flower power!

I'm an independent type.

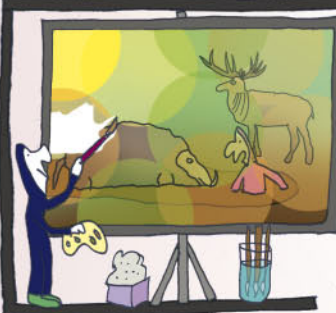
## Kiev

Ukraine's ancient capital was founded in the 9th century. Its most famous landmark is the gold-domed St. Sophia's Cathedral.



## Belarus

The Pripet Marshes in southern Belarus are the largest marshlands in Europe and are home to elk and wild boar.



Don't be a boar.

Come on!

Where's the fire?

## Ukraine

The Donbass basin in eastern Ukraine is Europe's largest coalfield and supports massive iron and steel works, car plants, and other industries.



I hit my head and saw tsars!

## Russian Federation

The largest nation on Earth, Russia stretches across both the European and Asian continents. Most people live in the towns and cities of western Russia.

### St. Petersburg

The capital of the Russian Empire for 200 years, St. Petersburg was built by Peter the Great in the early 1700s as a "window to the west."

Watch out below!

### Russian ballet

Russia is renowned for its ballet companies—the Kirov from St. Petersburg and the Bolshoi from Moscow.

Get to the pointe.

Hello, dolly!

MATRIOSHKA DOLLS

### The Kremlin

A fortified citadel in the heart of Moscow, the Kremlin includes the palace of the former tsars. Today, the Russian government has its headquarters here.

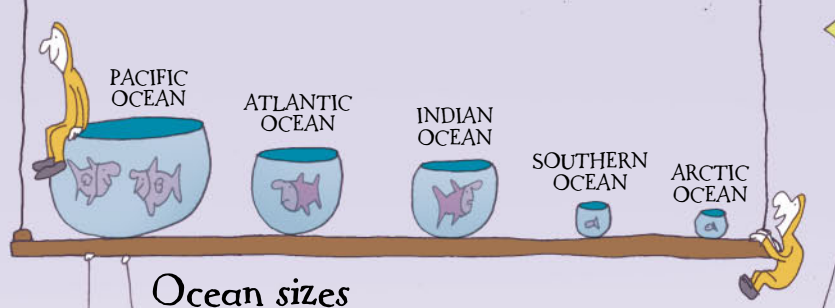
THE WINTER PALACE, ST. PETERSBURG

ST. BASIL'S CATHEDRAL, MOSCOW

EXIT

# OCEANS

More than two-thirds of Earth is covered in saltwater, most of which is contained within five great oceans that are home to millions of different fish and marine mammals. Until recently humans knew little about this watery world, but new technology has opened it up to human exploration and discovery.



## Ocean sizes

The world's five oceans and many seas occupy 139 million sq miles (361 million sq km) of Earth's surface. The Pacific Ocean is biggest in size, occupying a colossal 46.4 percent of the total watery surface of Earth.

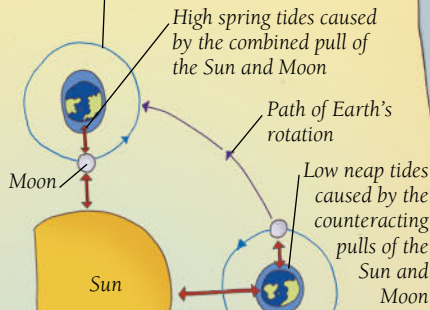
## Continental shelf

The edge of each continent slopes down into the sea, forming a shelf of shallow water.

## Tides

The gravitational pull between the spinning Earth, Moon, and Sun causes the oceans around the globe to rise and flood the shore, and then fall back, or ebb, again every 12 hours.

Path of Moon's rotation around Earth



## Ocean-basin floor

Past the continental shelf, the ocean-basin floor plummets to more than 6,560ft (2,000m) deep. Here, midocean ridges and trenches snake along the ocean floor. Descend even further to 16,400ft (5,000m) and discover the abyssal plain—the deepest, darkest part of the ocean floor, covered in a thick ooze.

## Continental slope

Beyond the continental shelf the ocean floor plunges steeply down the continental slope toward the deepest part of the ocean.

It's a slippery slope.

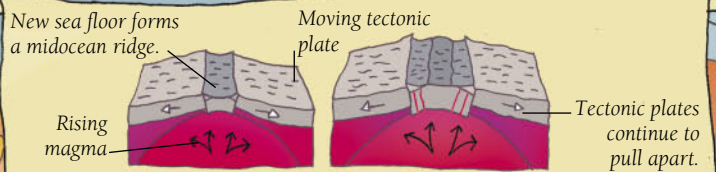
Watch my nose dive.

## Midocean ridge

As the Earth's tectonic plates pull apart on the ocean floor, magma rises up from the Earth's interior to form a midocean ridge.

## Pillow lava

When bubbles of lava erupt from a midocean ridge, they cool and solidify upon contact with the cold seawater, creating pillow-shaped lumps of rock that litter the ocean floor.



## Seafloor spreading

As two plates pull apart, magma rises up between them to form a ridge. This new seafloor is in turn pushed apart by more magma rising beneath it in a process called seafloor spreading, which is gradually widening the ocean.

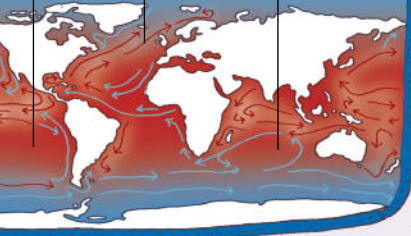
## Coral reefs

These underwater tropical forests are formed from the hard outer skeletons of tiny sea creatures called polyps.

It's a current affair.

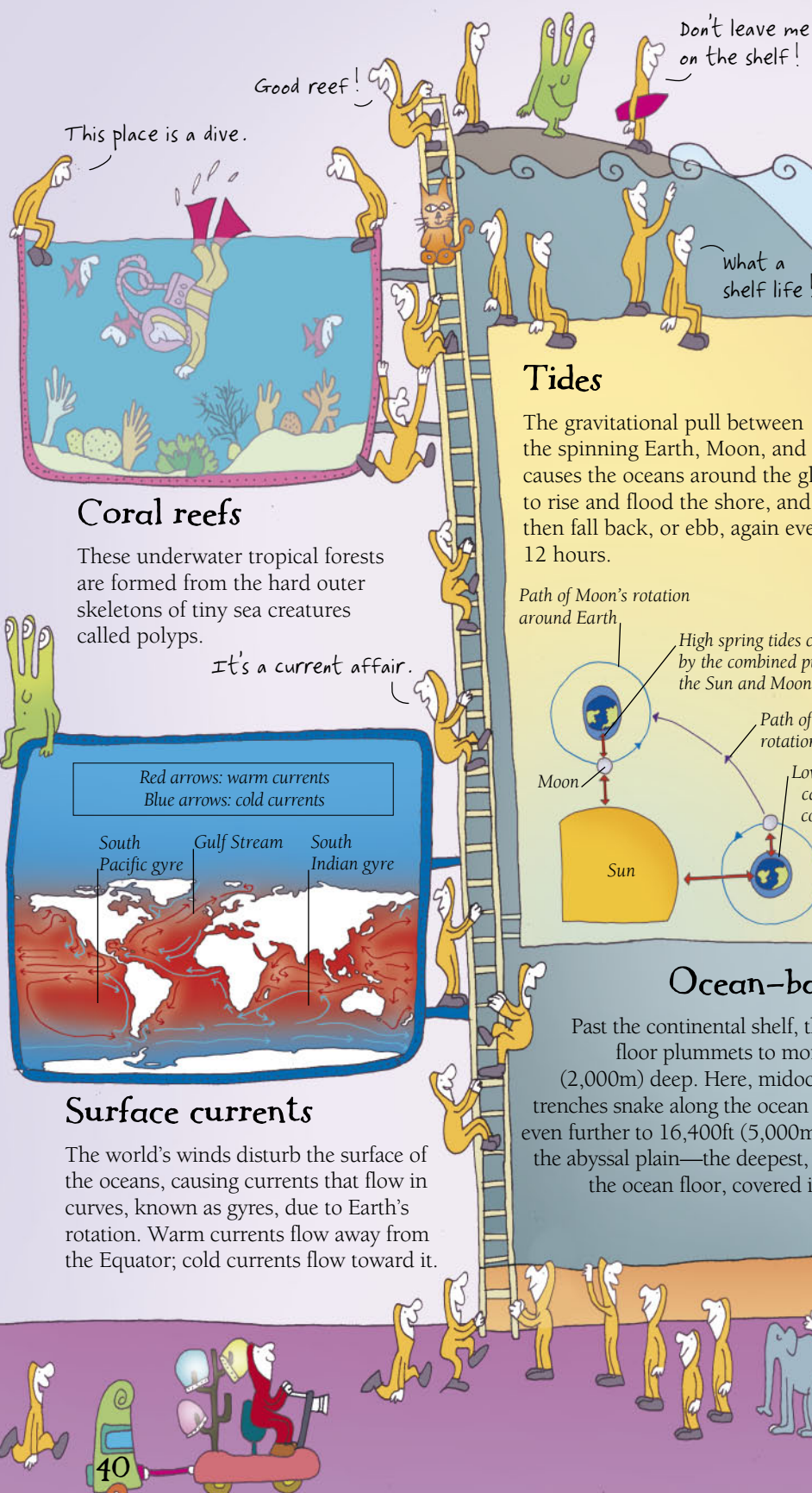
Red arrows: warm currents  
Blue arrows: cold currents

South Pacific gyre    Gulf Stream    South Indian gyre



## Surface currents

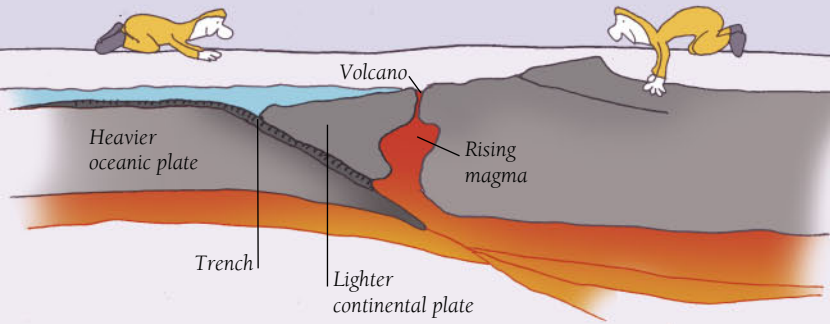
The world's winds disturb the surface of the oceans, causing currents that flow in curves, known as gyres, due to Earth's rotation. Warm currents flow away from the Equator; cold currents flow toward it.





## Trenches

The deepest points on Earth, ocean trenches form when a heavier oceanic plate subducts or dips beneath a lighter continental plate.

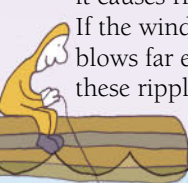


## Volcanoes

When an oceanic plate slides under a continental plate, it melts in the intense heat and forms hot, molten magma that is forced up to the surface and erupts in a violent display to create a volcano.

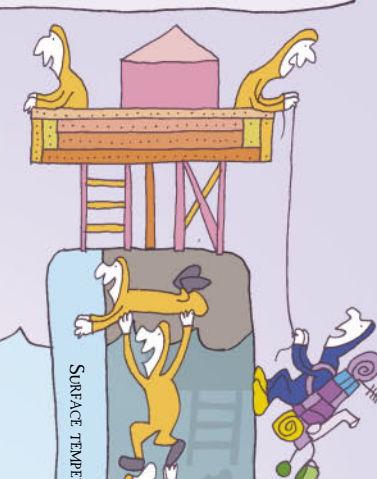
## Ocean waves

As the wind blows across the sea, it causes ripples on the surface. If the wind is strong enough and blows far enough across the water, these ripples build up into waves.



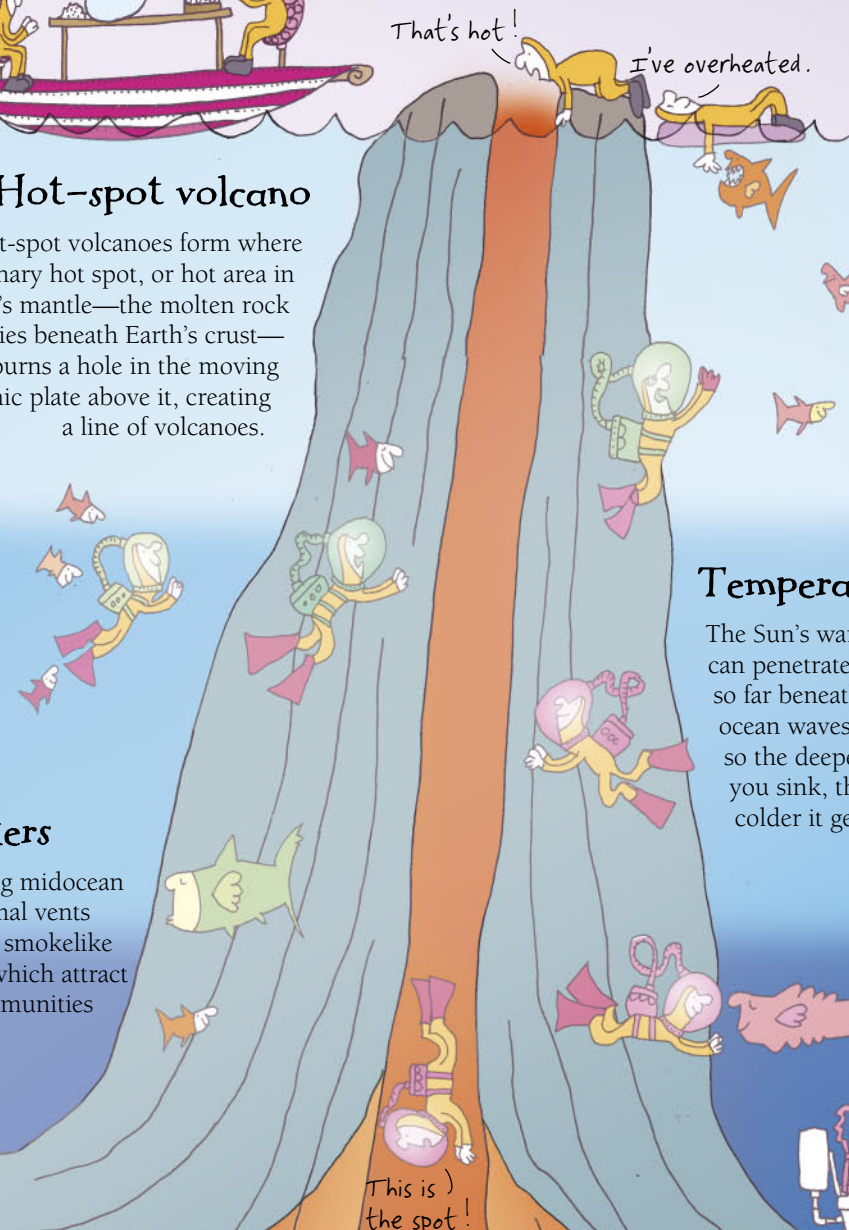
## Seawater

Making up 3.5 percent of seawater are dissolved mineral salts—mainly sodium chloride (known to us as table salt) with small amounts of magnesium, sulfur, calcium, potassium, and other elements.



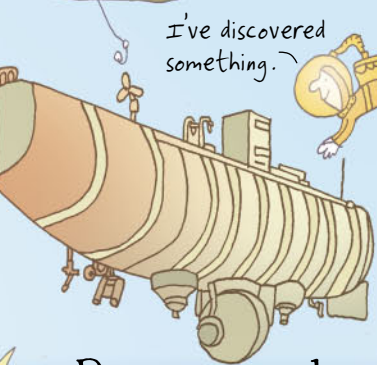
## Hot-spot volcano

Hot-spot volcanoes form where a stationary hot spot, or hot area in Earth's mantle—the molten rock that lies beneath Earth's crust—burns a hole in the moving tectonic plate above it, creating a line of volcanoes.



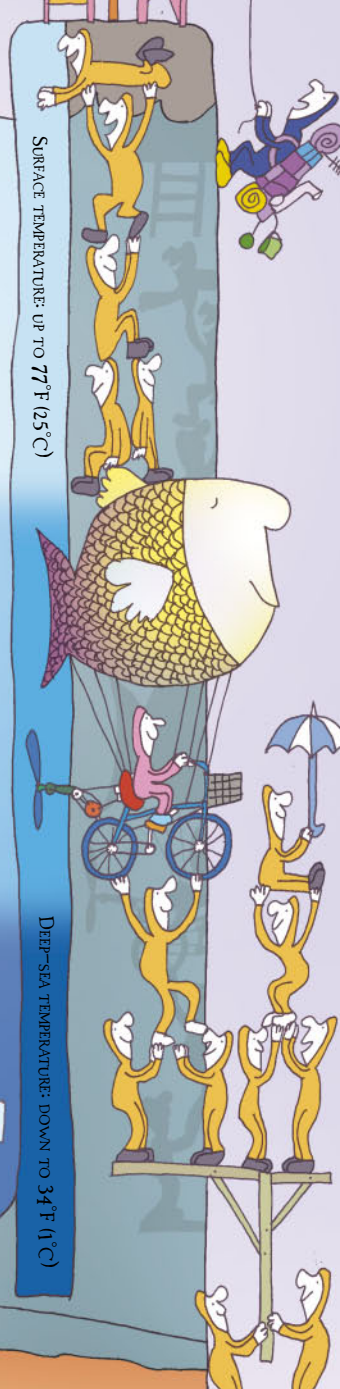
## Deep-sea exploration

In 1930, the first submersible—the circular bathysphere—was invented, providing the means for exploring the ocean floor. In 1960, the *Trieste* bathyscaphe dived to a record-breaking 35,798ft (10,911m) in the Mariana Trench in the Pacific Ocean.



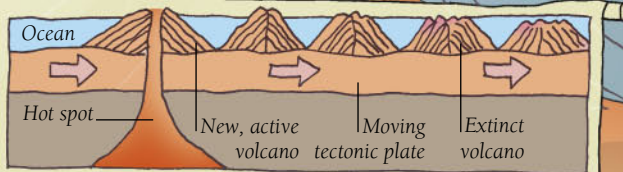
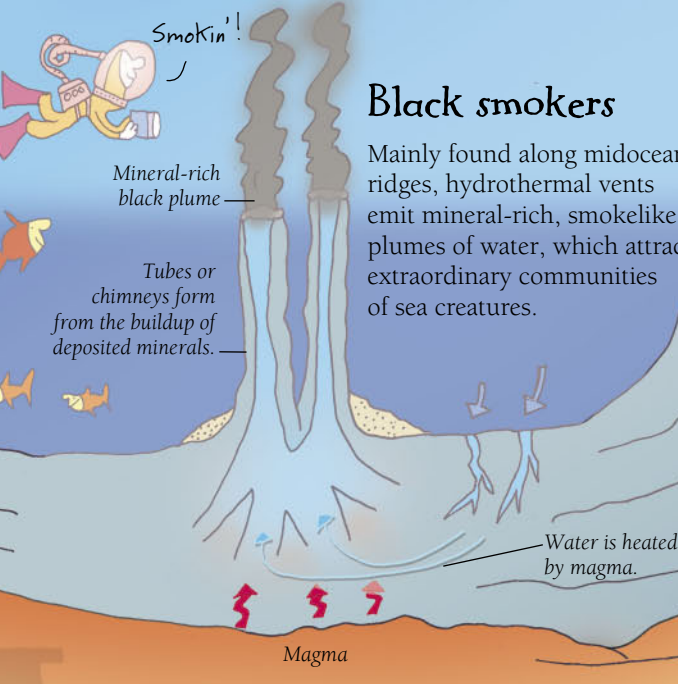
## Temperature

The Sun's warmth can penetrate only so far beneath the ocean waves, and so the deeper you sink, the colder it gets.



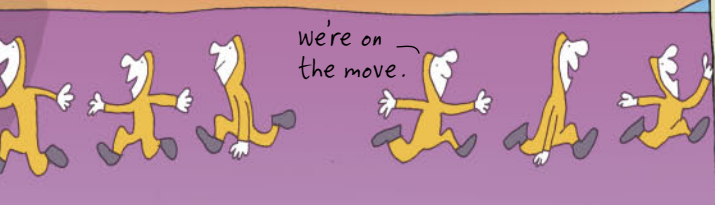
## Black smokers

Mainly found along midocean ridges, hydrothermal vents emit mineral-rich, smokelike plumes of water, which attract extraordinary communities of sea creatures.



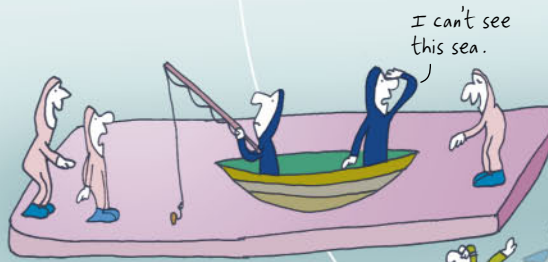
## Moving volcanoes

A "hot spot" can burn a hole in a moving tectonic plate to form a volcano. As the plate continues to move, the volcano moves away from the hot spot and becomes extinct. The hot spot then creates a new volcano and the process continues, resulting in a string of extinct volcanoes.



# ASIA

Everything about Asia is huge. It is the world's largest continent, includes the world's largest country—the Russian Federation—is home to more than half the world's total population, and has the world's most populated city, Tokyo. Asia is also a continent of great extremes, incorporating the snow-covered Siberia and the windswept Gobi Desert, as well as steaming tropical rain forests and baking hot, sandy deserts.



## Aral Sea

The inland Aral Sea, between Uzbekistan and Kazakhstan, was once a thriving freshwater lake. But over the past 50 years the rivers that emptied into it have been diverted or drained to provide irrigation for crops. The sea has now shrunk to half its size and has even divided in two.



## Dead Sea

The aptly named Dead Sea is so salty that nothing can live in it. The mineral salts in its water are so highly concentrated that people can simply float, unaided, on its surface. Fed by the River Jordan, this low-lying lake has no outlet to the sea and is the lowest point on Earth's land surface, lying 1,286ft (392m) below sea level.



## Persian Gulf

The inlet of water that runs between Iran, Saudi Arabia, and the various states to its south is called the Persian Gulf. Lying on top of massive oil fields, the region holds about two-thirds of the world's proven oil reserves.





# BIZARRE BAZAAR

Asia is one of the world's busiest marketplaces, home to four billion people buying, selling, preparing, producing, and manufacturing everything that can possibly be needed in their daily lives. Carpets and rugs, fresh food and cooked delicacies, televisions and cars, ships and computers—all these and much more are for sale somewhere in this bustling bazaar.

Quick! There's a sale on this way.

## Russian Federation

Even without its European part, Siberia—as Asian Russia is known—would still be the biggest country in the world. It is sparsely occupied, since the winters are very harsh and the summers short.

All this rushin'.

Take my picture!

### Natural resources

Siberia is rich in timber and has huge oil, gas, and mineral reserves, although many are in remote parts of the country and difficult to access.

### Siberian tiger

No more than 500 of these beautiful beasts—the largest tigers in the world—survive in the wilds of far eastern Siberia.

Nice Kitty!

### Trans-Siberian railway

The 5,785-mile (9,310-km) Trans-Siberian railway runs from Moscow in the west across Siberia to Vladivostok in the east, with a journey time of eight days to travel from end to end.

### Chess

The national game of Russia, chess is regularly played in Siberia during the long winter nights.

Whose turn is it?

I'd better check.

The price is right.

## The Caucasus

The three small, mountainous, and largely agricultural states of the Caucasus lie squashed between the powerful neighboring states of Russia, Iran, and Turkey.

## Turkey

Turkey, like Russia, crosses the continents of Asia and Europe, although most of it is in Asia. Its Mediterranean coast attracts many tourists and is an important source of income.

### Carpets

Turkish woven kilims, or carpets, are famous throughout the world for their intricate abstract designs.

From rugs to riches.

TURKISH DELIGHT

APRICOTS

KEBABS

SPICED MEATBALLS

FIGS

### Georgia

Sheltered from cold north winds by the Caucasus mountains, Georgia is a major producer of grapes for wine.

Don't whine.

They're too high!

### Armenia

The world's oldest Christian nation, Armenia relies primarily on farming, notably sheep rearing, as its main industry.

Smooth as silk.

### Textiles

Georgia's significant silk and textile industry forms an important part of its economy.

### Caviar

The sturgeon of the Caspian Sea is a highly prized source of caviar—an expensive delicacy.

Fish eggs? Yuck!

More for me!

### Azerbaijan

Meaning "land of the flames" after the 8th-century Persians saw burning natural gas escaping from the ground, Azerbaijan exports much oil and natural gas to Europe.

Let's get knitting!

This would make a good yarn.

## The Near East

Bordered by the eastern Mediterranean Sea, with the River Jordan running through it, this ancient region was the birthplace of some of the world's oldest civilizations and religions.

### Syria

Cotton is one of the main cash crops grown in Syria, alongside fruit and vegetables.

### Lebanon

The national symbol of Lebanon, cedar trees survive in a few protected woods and can live for more than 1,500 years.

Kibbe—a fried ball of lamb, cracked wheat, and onions—is the national dish of Lebanon.

## Iran

Islamic spiritual leaders have governed the ancient country of Iran since 1979, making it one of the only two theocracies in the world.

### Carpets

Iran is famous for its closely woven, intricately designed carpets and rugs that take many months to complete.

Quick, these are a bargain.

Nice carpet!

I worked my magic.

SHAH MOSQUE AT ISFAHAN

PERSIA—ANCIENT IRAN—WAS FAMOUS FOR ITS MINIATURE PAINTINGS.



### Architecture

Many old Iranian mosques are decorated in brightly colored tiles, with gold domes and tall minarets from which the faithful are called to prayer.

## Central Asia

The five "stans" or "lands" of Central Asia all became independent in 1991 after years of Russian rule. While Turkmenistan and Uzbekistan are largely flat and desertlike, Kyrgyzstan and Tajikistan are mountainous, and Kazakhstan consists of rolling steppes.

## Iraq

Lying across the fertile Tigris and Euphrates river valleys, Iraq is dominated by scorching desert in the south and west of the country, and mountains in its north and east.

### Kuwait

Kuwait's oil reserves, which are the fifth largest in the world, have fueled the country's prosperity.

He's barrels of fun.

### Bahrain

The tiny island nation of Bahrain was once a major producer of pearls, although oil and gas have transformed the local economy.

### Ancient Iraq

The ziggurat at Ur is one of many ancient buildings from the world's earliest and most advanced civilizations that flourished in Iraq more than 5,000 years ago.

### Oil

Iraq has significantly vast natural gas reserves, as well as the third-largest oil reserves in the world.

Are you stringing me along?

## The Gulf States

The south and west shores of the Gulf are occupied by a number of small Arab emirates, or kingdoms. All are awash in oil and gas and are using the money to develop other industries as well as tourism.

### Qatar

The flat, dry, desert peninsula of Qatar relies on its abundance of oil and gas, since oil production and refining form the basis of its economy.

Hooray!

### United Arab Emirates

In 1971 seven separate emirates came together to form a single, federated country: the UAE. One of the emirates—Dubai—has built extraordinary fan-shaped developments in the sea to attract foreign tourists.

I'm a big fan of the architecture.

### Oman

The seas off Oman teem with fish, including tuna, anchovies, sardines, and cuttlefish, and are now being exploited by local fishermen.

They're packed like sardines.

### Yemen

It is thought that drinking coffee originated in Yemen, which still produces some of the world's finest coffee beans today.

How's your coffee?

The finest cup ever!

### Saudi Arabia

Oil has made Saudi Arabia fabulously rich, enabling it to develop new industries and build desalination plants—for turning seawater into useable freshwater.

### Arabia

The Arabian peninsula mainly consists of a hot, dry desert that sits on top of the world's largest reserves of oil and natural gas, which have brought immense wealth to the region.

I'm naturally reserved.

This is immense!

### Israel

Israel was founded in 1948 as a homeland for Jews from around the world, but it is also home to many Palestinian Muslims and Christians.

### Palestine

The River Jordan is the lowest river in the world. On its west bank, as well as in the Gaza Strip, Palestinians enjoy a limited home rule.

### Jordan

The salt of the Dead Sea is collected and used in cooking and preserving food, while some people find the waters have healing properties.

Too much salt is bad for you.

No it's not.



### Turkmenistan

The "land of the Turkmen" nomads is famous for its Akhal-Teke racehorses—the country's national emblem.

Hold your horses.



### Uzbekistan

Uzbekistan is a major producer of cotton, and also has one of the world's largest gold mines, as well as vast reserves of natural gas and oil.

It's a top pick!



### Kazakhstan

The first Kazakhs were nomads who traveled around on horses. Horse-racing remains popular today, while kumis—fermented mare's milk—is the national drink. Cheers!

### Kyrgyzstan

Mountainous Kyrgyzstan has a wealth of exploitable natural resources: the perfect landscape for hydroelectric power stations, and vast reserves of mercury and gold, which it exports.

Did someone break a thermometer?

### Tajikistan

Its plentiful supplies of uranium, used in nuclear power generation, are the mainstay of Tajikistan's economy.

Atomic!

## Central Southern Asia

The Muslim countries of Afghanistan and Pakistan lie sandwiched between India, Iran, and central Asia. Both countries are home to many different peoples speaking many different languages.

### Karakul sheep

Afghan farmers breed the karakul sheep—one of the oldest domesticated sheep breeds—for its distinctive curly fleece.

Baa!



### Pakistan

An important cotton-producer, Pakistan has developed a large textile industry around this.

Are we packed yet?



This is industrial-strength cotton.



### By bus

The brightly decorated buses, often lit by holiday lights, are the most colorful way to travel around Pakistan.



### Afghanistan

The different groups of peoples that live in Afghanistan traditionally have their own distinguishable hats.



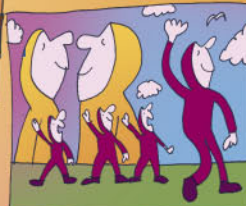
### Spinning cotton

The chakra, or spinning wheel, became a symbol for Indian independence through inspirational leader Mahatma Gandhi.

This is wheelie cool.



I like my independence.



## Indian subcontinent

With more than one-fifth of the world's population, the Indian subcontinent is home to many different ethnic groups and religions, epitomized by the symbolic Lotus Temple in New Delhi, in which followers of all religions are invited to worship.

It's a wrap.



### Bhutan

The world's only Buddhist kingdom, Bhutan lies high up in the Himalayas. Here, yaks are tended for their meat, milk, hair, and tails.



### Nepal

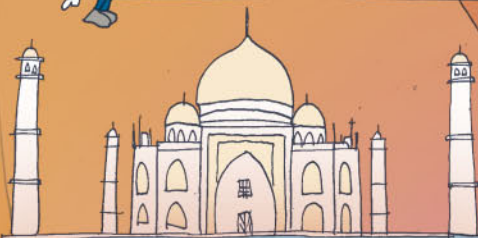
Native Nepalese known as Sherpas serve as guides for the many mountaineers who come to climb Everest and other Himalayan mountains.



Does this strike a cord?



TAJ MAHAL—BUILT BY MOGUL EMPEROR SHAH JAHAN TO COMMEMORATE HIS WIFE MUMTAZ, WHO DIED IN 1631

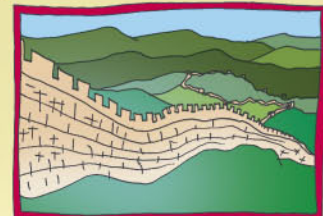


### Bollywood

A fusing of "Bombay" (as Mumbai used to be known) with "Hollywood," the term "Bollywood" refers to a particular style of Indian film, popular among Indians living throughout the world.

## East Asia

The ancient country of China is today the world's most populated nation, with the fastest-growing economy. To its north is Mongolia—a landlocked country that is rich in mineral resources.



### The Great Wall of China

First constructed around 200BC and then much enlarged and lengthened, the world's longest structure—at almost 4,000 miles (6,400km) long—snakes across China.

Did they consider building a fence?



This is great!

### Bangladesh

Low-lying Bangladesh is ideal for growing jute—a tough, fibrous plant that is used to make rope, sacking, and carpet backing.



Tea for two.

### Maldives

Coconuts are an important harvest in the Maldives, where tuna fishing and tourism are also major industries.



Incoming!

### Sri Lanka

Sri Lanka is the world's second largest producer of tea, which is grown in the country's humid, hilly interior.

# Maritime Southeast Asia

The tropical island nations off the southeast coast of Asia include Indonesia—the largest archipelago in the world with more than 18,000 islands.



Let's drum up support.

## Brunei

Following the discovery of oil underneath this tiny kingdom, Brunei is today one of the world's richest countries.

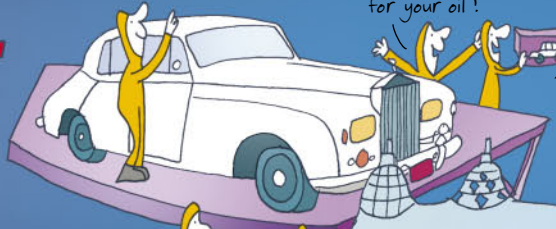
I play the oil drum.



## East Timor

The waters off this tiny nation contain one of the richest oil fields in the world outside the Middle East.

Some cars for your oil?



## Philippines

The Philippines are the second-largest producer of coconuts in the world. They are used to make many useful products.

BASKETS MADE FROM PALM LEAVES



MATS MADE FROM THE COCONUT'S OUTER HUSK



COCONUT MEAT AND MILK IS USED IN COOKING



## Indonesia

Gamelans—tuned percussion orchestras—accompany dancers in ritual and religious ceremonies.



Top stuff!

## Malaysia

Malaysia is one of the world's top producers of palm oil, from coconuts, used in cooking and to make soap.

## Myanmar (Burma)

The deep-red rubies mined in Burma are considered to be the best in the world.

You're the best.



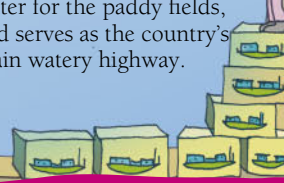
## Thailand

Many of the markets in Bangkok, the Thai capital, are on the water, with traders selling their goods from floating sampans.



## Laos

Meaning "Mother of rivers," the Mekong in Laos is a rich source of fish, irrigation water for the paddy fields, and serves as the country's main watery highway.



# Southeast Asia

Seven nations are crowded onto the southeast Asian peninsula. Their peoples are a mix of Hindus, Buddhists, and Muslims with a rich mixture of beliefs and cultures.

## Singapore

The island nation of Singapore is the world's busiest port, handling ships from China, Japan, the Middle East, and Europe.



## Vietnam

Much of Vietnam's farmland is underwater during the year, since the country is a leading producer and exporter of rice.

What a pretty paddy.



## Cambodia

Once the center of the Khmer Empire, Cambodia's jungles reveal such structures as the vast 12th-century temple of Angkor Wat.

Angkor what?

## North Korea

The root of the ginseng plant, grown in both North and South Korea, is believed to nurture good health and energy.



It's ship shape.

## South Korea

One-third of the world's new ships come from South Korean shipyards, which work at an impressive rate to complete a new ship once every four working days!

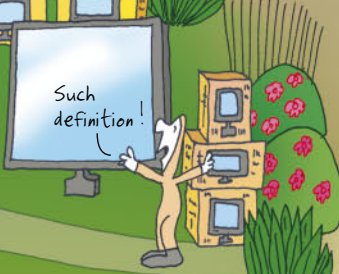
Traditional Japanese dress includes kimonos and geta, or wooden clogs.

Kimonover sometime.



## Japan

The Japanese excel at making electronic goods, leading the world in computers and consumer goods.



Such definition!

# Japan and Korea

Both South Korea and the island nation of Japan have highly developed industrial economies, producing everything from ships and cars to computers and high-definition televisions.

## Chinese food

Star anise and other spices are used to flavor Chinese food, which is eaten out of small bowls using two wooden sticks known as chopsticks.



Chop, chop!

## Horse skills

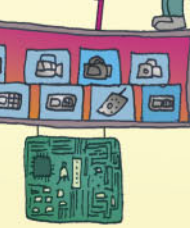
Riding horses for pleasure, racing, hunting, and sport, many Mongols are highly skilled horse riders.



Don't be a neigh sayer.

## Taiwan

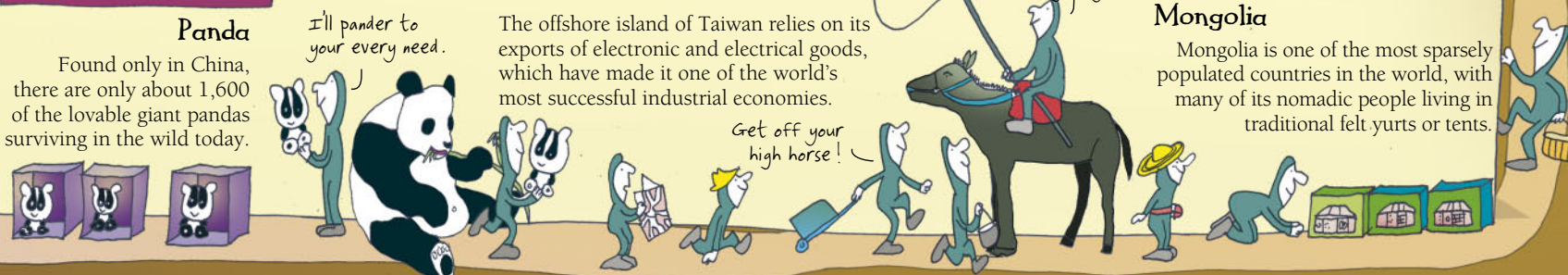
The offshore island of Taiwan relies on its exports of electronic and electrical goods, which have made it one of the world's most successful industrial economies.



Get off your high horse!

## Mongolia

Mongolia is one of the most sparsely populated countries in the world, with many of its nomadic people living in traditional felt yurts or tents.



## Panda

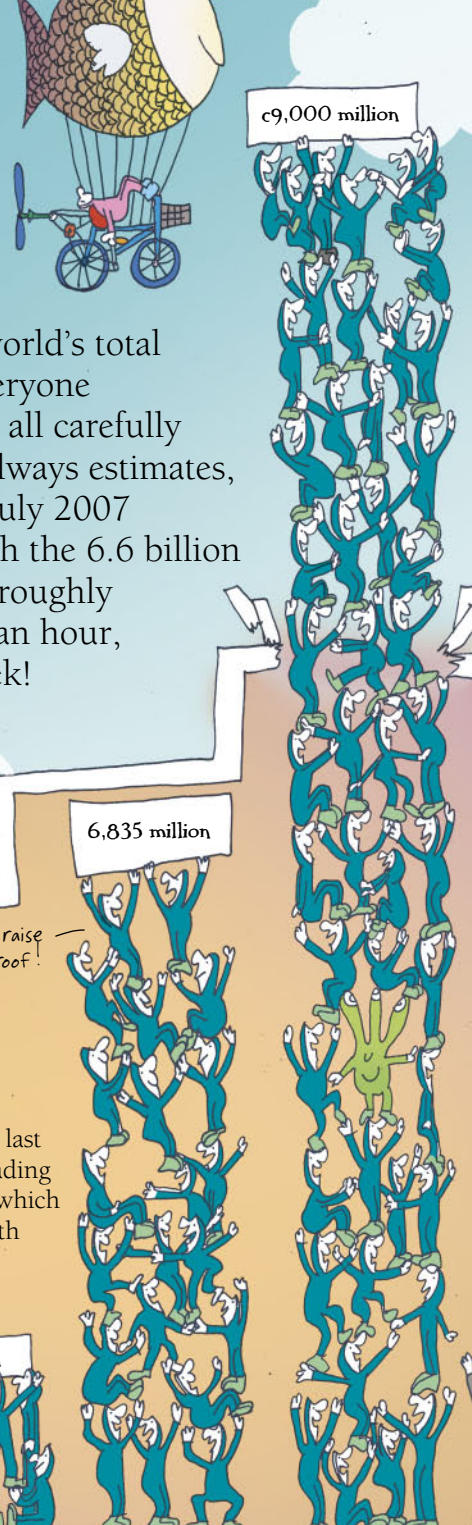
Found only in China, there are only about 1,600 of the lovable giant pandas surviving in the wild today.

I'll pander to your every need.



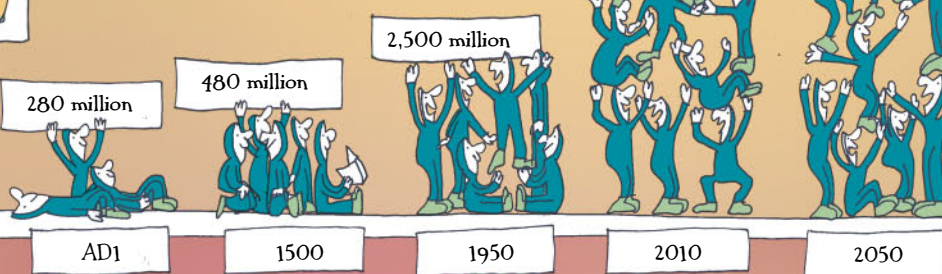
# WORLD'S PEOPLE

It is very difficult to calculate the world's total population—you can't just ask everyone to stand still for a day while they are all carefully counted. So population figures are always estimates, but demographers calculate that in July 2007 the world's population broke through the 6.6 billion barrier, and is still rising at a rate of roughly 3 people a second, which is 10,800 an hour, 259,200 a day, and 1,814,400 a week!



## Population growth

For most of human history, the population has grown slowly, only reaching 1 billion (1,000 million) by the year 1800. But in the last 10 years, it has shot past 6 billion and is heading towards an estimated 9 billion by 2050, by which time many scientists expect the rate of growth to slow down or even reverse slightly.



## People per continent

Six out of every 10 people alive today live in Asia; the vast majority in the big cities of India, China, Japan, and Korea. The rest of the world's population is slightly more evenly spread out across five other continents. No one lives permanently in Antarctica.

Oceania: 33,560,095  
0.5% of world's population

South America: 379,922,707  
6% of world's population

North America: 522,847,395  
8% of world's population

Europe: 729,861,490  
11% of world's population

Africa: 934,499,752  
14% of world's population

Asia: 4,001,633,990  
60.5% of world's population

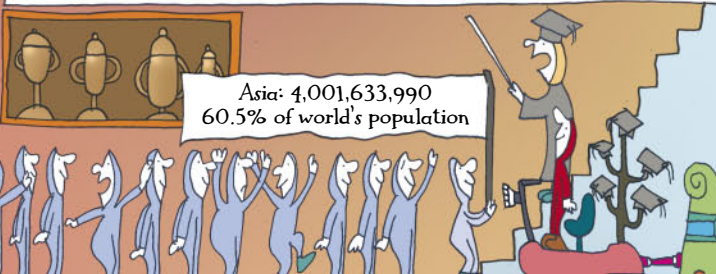
## Age structure

Roughly 27.5 percent of the world's population is age 14 or under. The vast majority—65 percent—are between 15 and 64, with the remaining 7.5 percent being age 65 or over. The average person alive today is 28 and can expect to live to 64 if a man, and 68 if a woman, but of course this figure varies considerably around the world.



## Big and small

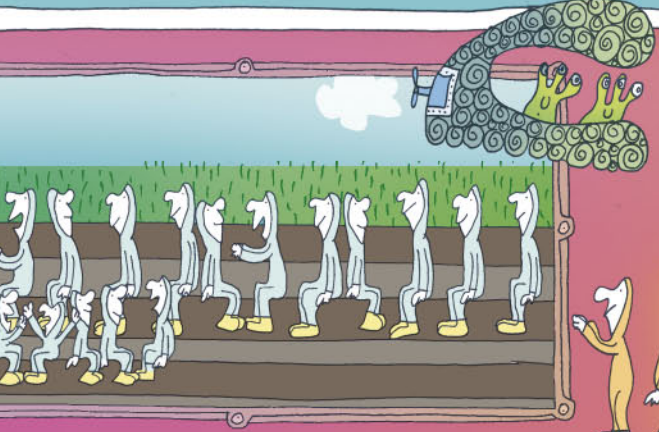
The Russian Federation is by far the biggest country in the world, but China is the most heavily populated, with 20 percent of the world's total. The smallest country in both size and population is Vatican City in Rome, home to just 800 people.



You can count on me.







## First languages spoken

There are about 6,900 languages spoken in the world today, some spoken by millions of people, others by less than 1,000, and many people speak more than one language.

I can't understand a word he's saying.

### ESTIMATES OF FIRST LANGUAGES

MANDARIN CHINESE spoken by 873 million  
 SPANISH spoken by 322 million  
 ENGLISH spoken by 309 million  
 PORTUGUESE spoken by 230 million  
 ARABIC spoken by 206 million

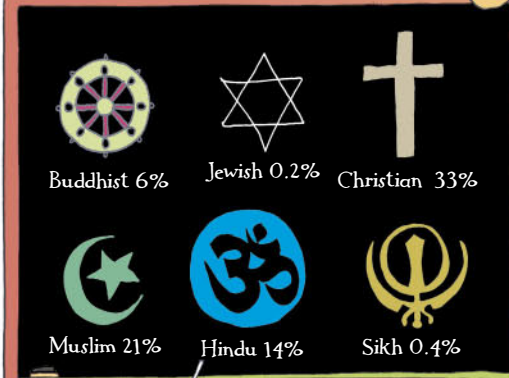
I speak double Dutch.

Pardon?

## World religions

The major world religions were all founded around 1,400 years ago, but new religions are still forming today. About 16 percent of the world's population has no religion.

I'm holding on to my faith.



Is this true?

I believe so.

## Largest urban areas

It is very difficult to estimate the population of a city, as people come and go every day, and the boundary of what is in and outside the city is not always clear—it will often sprawl beyond its political boundary. Therefore, the population figures below are estimates for each entire built-up area.

Tokyo 32,450,000

Seoul 20,550,000

Mexico City 20,450,000

New York 19,750,000

Mumbai 19,200,000

Jakarta 18,900,000

Seo Paolo 18,850,000

Delhi 18,600,000

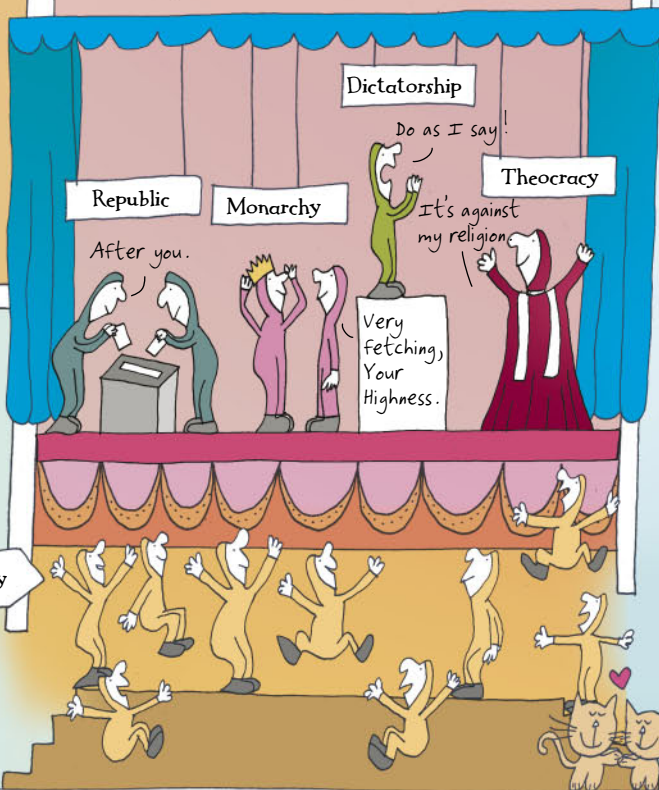
Osaka 17,375,000

Shanghai 16,650,000

Hello!

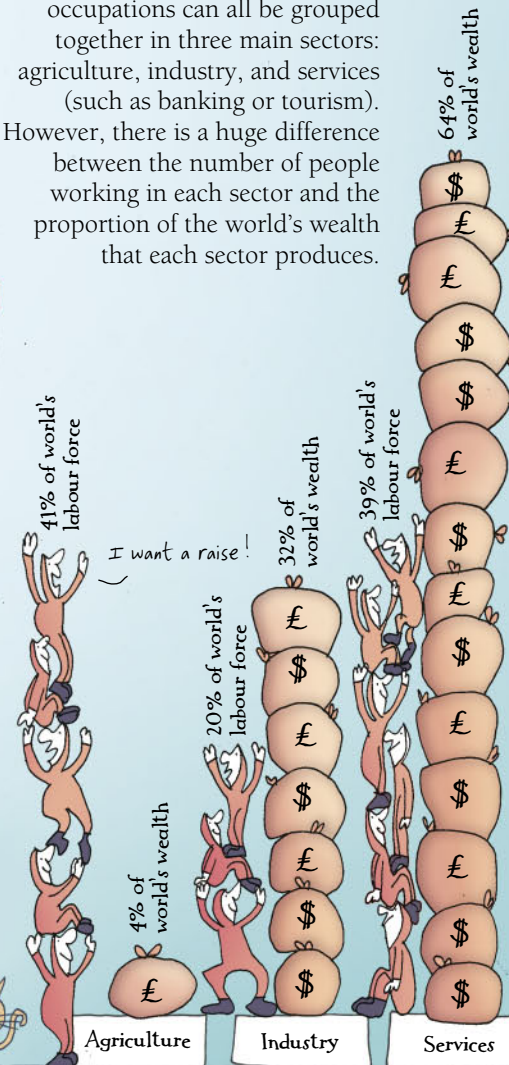
## Political systems

Every country has its own political system but they can be grouped into roughly four main types: a republic like France where people vote for their head of state and government; a monarchy like Britain where the head of state is hereditary; a dictatorship like Myanmar (Burma) where a strong man or the army is in control; and a theocracy like Iran where priests rule according to religious laws.



## World wealth

People's different jobs and occupations can all be grouped together in three main sectors: agriculture, industry, and services (such as banking and tourism). However, there is a huge difference between the number of people working in each sector and the proportion of the world's wealth that each sector produces.



## Town and country

Throughout human history, more people have lived in the countryside than in the towns. At some point in 2008, that balance shifted, and now more people live in the world's ever-growing towns than in the country.





International Date line

MIDWAY ISLANDS (to USA)

HAWAIIAN ISLANDS (to USA)

JOHNSTON ATOLL (to USA)

Tropic of Cancer

We've just gone back in time by 24 hours.  
I do feel younger.

### International Date Line

Running down the Pacific Ocean exactly halfway around the world from the Greenwich prime meridian is the imaginary International Date Line, which marks the boundary between consecutive calendar days. The line zigzags in places to avoid splitting countries into two days.

There's something fishy going on here.

Wish I'd brought my trench coat!

### Mariana Trench

Created when the Pacific Plate collided with the Philippine Plate, the Mariana Trench boasts the world's deepest point. A staggering 36,201ft (11,033m) deep, Challenger Deep was so-named after the survey ship HMS Challenger, which discovered the Trench just east of the Mariana Islands in 1872.

CLIPPERTON ISLAND (to France)

I'm a terrier on the barrier.

### Great Barrier Reef

The largest living thing on Earth, the Great Barrier Reef stretches for 1,240 miles (2,000km) along the northeast coast of Australia. The coral reef teems with thousands of different fish and is popular with divers and snorkelers. In order to help conserve this remarkable habitat, the reef was classified as a World Heritage Site in 1981.

Tropic of Capricorn

PITCAIRN ISLANDS (to UK)

EASTER ISLAND (to Chile)

### Pacific Ocean

Oceania lies in the southern half of the Pacific Ocean—the world's largest ocean—and enjoys a hot, wet climate, sometimes falling prey to tropical cyclones, which batter the small islands. Rising sea levels caused by global warming threaten the many low-lying coral islands, some of which are currently only 6ft (2m) above sea level.

Fongafale, TUVALU

TOKELAU (to New Zealand)

Mata'Utu, WALLIS AND FUTUNA (to France)

Apia, SAMOA

Suva, FIJI

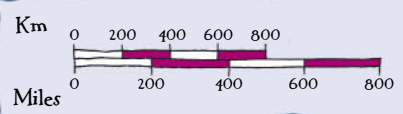
Pago Pago, AMERICAN SAMOA (to USA)

Nuku'Alofa, TONGA

Alofi, NIUE (to New Zealand)

Papeete, FRENCH POLYNESIA (to France)

Avarua, COOK ISLANDS (to New Zealand)



Looks like we're heading east.

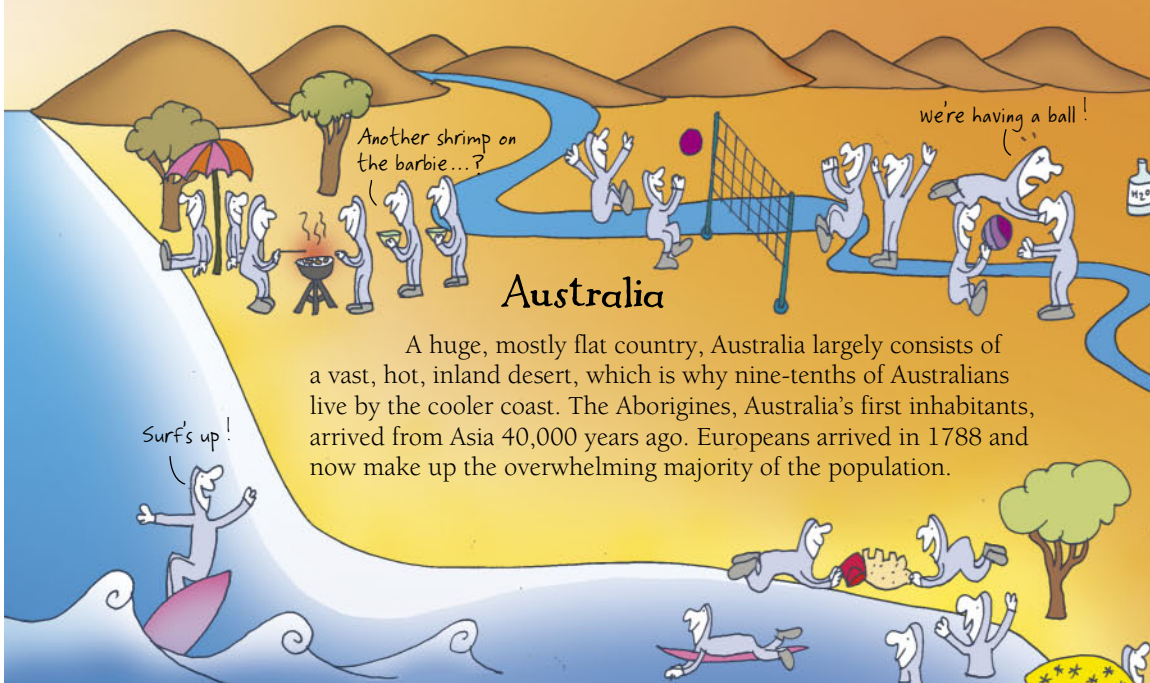
Yoo-hoo!

Yo!

Yo!

# BEACH BARBECUE

Around 33 million people live in Oceania, with the vast majority of them residing in the towns and cities of coastal Australia and New Zealand. The Pacific islanders live on three main groups of islands—Micronesia, Melanesia, and Polynesia—and share similar languages and customs, although the vast distances between the islands make communication difficult and travel expensive.



## Australia

A huge, mostly flat country, Australia largely consists of a vast, hot, inland desert, which is why nine-tenths of Australians live by the cooler coast. The Aborigines, Australia's first inhabitants, arrived from Asia 40,000 years ago. Europeans arrived in 1788 and now make up the overwhelming majority of the population.

Sorry, did I make you jump?

We're having a ball!

Another shrimp on the barbie...?



Surf's up!

Let's rock.

## Uluru / Ayers Rock

A massive outcrop of red sandstone carved by the wind and sandstorms, Uluru is considered a sacred site by the local Aborigines.



Sydney

Melbourne

## Canberra

Unable to choose between Sydney and Melbourne as Australia's capital city, it was decided to build a new capital—Canberra—midway between the two.

I hear singing

## Aborigine culture

The Aborigines developed a sophisticated musical culture, based on a long bamboo or hardwood pipe that makes a deep, echoing sound—the didgeridoo.

I didgeridoo. I didgeridon't.

And don't come back!

Hop to it!

## Wildlife

Unique to the continent are kangaroos, koalas, black swans, plus the world's only egg-laying mammals—platypuses and echidnas.

## Sydney

The largest and oldest city in Australia, Sydney lies around a large, sheltered harbor, with its iconic Opera House and world-famous Harbour Bridge.

I'm looking for safe harbor.





### World's largest butterfly

Found only in New Guinea, the Queen Alexandra's birdwing butterfly has a wingspan of up to 1ft (30cm).

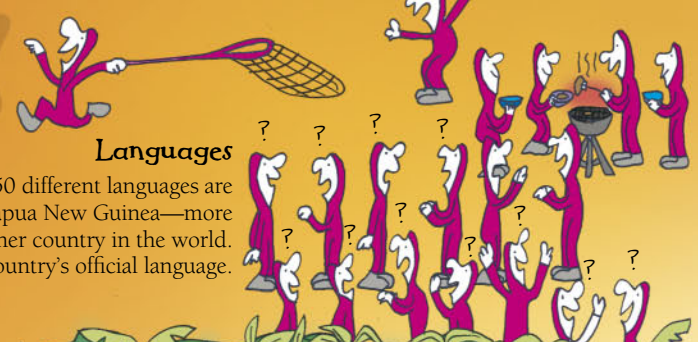


### Mining

The gold mines of Papua New Guinea are among the largest in the world. Copper, silver, nickel, and cobalt are also mined.

This is heavy metal.

This ones mine.

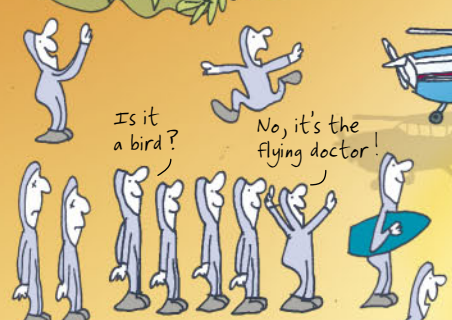


### Languages

More than 750 different languages are spoken in Papua New Guinea—more than in any other country in the world. English is the country's official language.

## Papua New Guinea

A mostly mountainous country covered with tropical rain forest, Papua New Guinea occupies the eastern end of New Guinea—the world's third largest island—and includes 600 other small islands, spread out across the Pacific.



Is it a bird?

No, it's the flying doctor!

### Flying doctors

Some farms and small settlements in Australia's Outback are so remote that the only way doctors can reach their patients in time is by airplane.

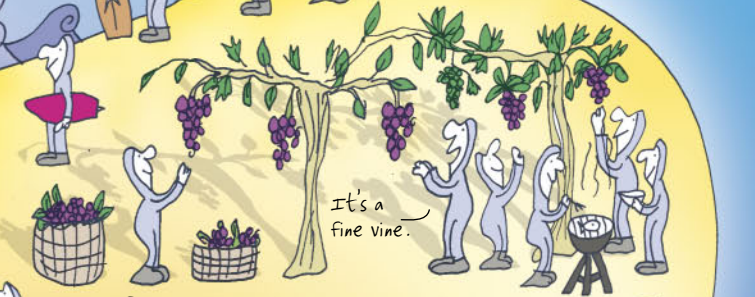


I'm winded.

I used to surf the Internet.

### Surfing

Australians are sports-crazy, surfing the great waves that pound their shores, sailing the seas, as well as playing Australian Rules football, rugby, cricket, and tennis.



It's a fine vine.

### Grapes

Southeast Australia's warm, dry climate is ideal for growing grapes and other fruit. Its successful vineyards have made it the fourth largest wine exporter in the world.

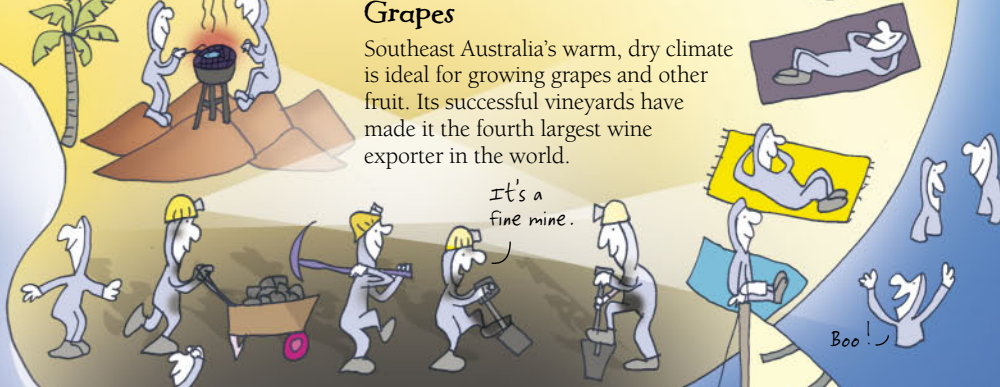


This is just great.

Bonzer!

### Great Barrier Reef

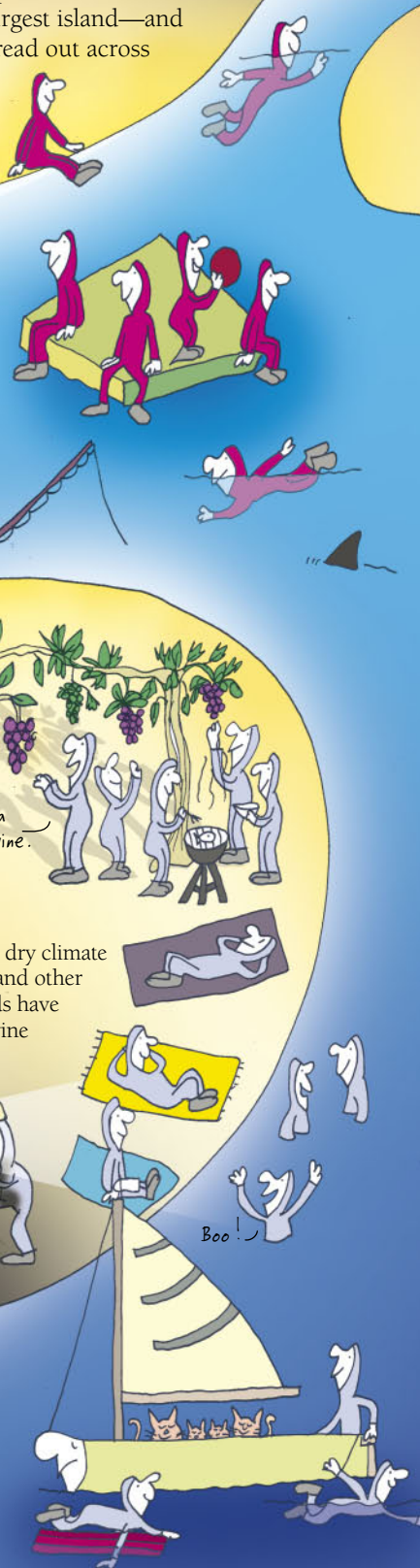
The breathtakingly beautiful Great Barrier Reef lies just under the waves—an ideal place for divers to see the spectacular fish and corals of the reef.



It's a fine mine.

### Mining

Australia has one of the world's most important mining industries, with vast reserves of coal, iron ore, gold, copper, and bauxite—used to make aluminum.



Boo!

## Micronesia

The Marshall Islands, Nauru, Palau, and the Federated States of Micronesia, as well as the U.S. territories of Guam, Wake Island, and the Northern Mariana Islands, make up the region known collectively as Micronesia in the northwest Pacific.

I live on an island.

Be more Pacific.

## Palau

With an abundance of palm trees, Palau's islanders harvest coconuts for their copra—the dried kernel or nut that is made into coconut oil.

I'm going nuts.

## Micronesia

Coral atolls and an array of shipwrecks from World War II attract many scuba-diving tourists to the Federated States of Micronesia.

What a wreck.

## Nauru

The world's smallest republic, Nauru has a lunar landscape following the exhaustive mining of its vast reserves of phosphate.

I'm exhausted.

## Marshall Islands

Like many others in the Pacific, the inhabitants of the Marshall Islands fear that rising sea levels may engulf their low-lying island nation.

Quick, more sand!

## Guam

A major U.S. military base covers one-third of this tropical island, which also entices many tourists.

## Melanesia

The Melanesian islands of the southwest Pacific are mostly volcanic in origin and consist of Fiji, the Solomon Islands, Vanuatu, and French-owned New Caledonia.

## Solomon Islands

The heavily wooded Solomon Islands introduced a sustainable forest-harvesting policy in 1998 to prevent illegal logging and deforestation.

It's tree time!

This gets nuttier by the minute!

## Vanuatu

Once known as the New Hebrides until its independence in 1980, Vanuatu today relies on its exports of cocoa and coconut products.

## Fiji

The main crop grown on Fiji is sugar cane, which is exported along with copra and gold.

Sweet.

Pass the sugar.

This is golden.

It's a luau!

## Polynesia

The far-flung Polynesian islands include Kiribati, Samoa, Tonga, and Tuvalu; the New Zealand-administered Cook Islands, Niue, and Tokelau; French Polynesia and Wallis and Futuna; the British-owned Pitcairn Islands; and distant Easter Island, administered by Chile.

## Hawaii

Lying to the north of Polynesia, Hawaii, formed by the peaks of the world's tallest volcanoes, is the 50th state of the U.S. and a major tourist destination.

## Kiribati

Like many Pacific nations, Kiribati's farmers harvest the coconut and use every part of it: copra for oil, and coir fibers for ropes, mats, and brushes.

I'm a great catch!

## Tuvalu

In 1998 Tuvalu sold its ".tv" domain name for use on the Internet by television-related Web sites, bringing in millions of dollars.

This is my domain.

## Tonga

Uniquely among the Pacific islands, Tonga was never fully colonized and kept its own monarchy.

It's good to be King.

## Samoa

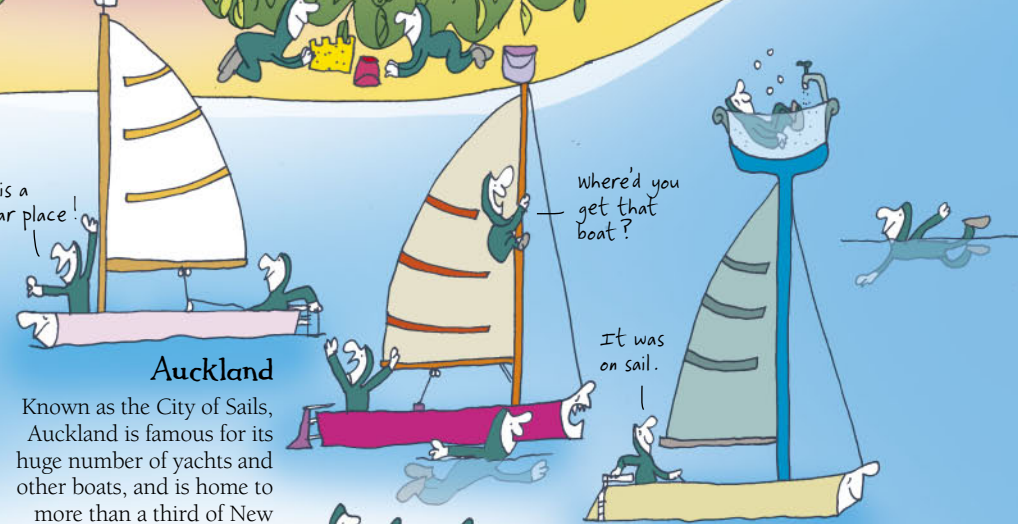
Forestry and agriculture provide the main exports for this island nation, while tourism boosts the local income.

Timber!



### Whale watching

The seas around New Zealand are full of marine mammals, including dolphins, porpoises, and whales, which can often be glimpsed close to the shore.



### Auckland

Known as the City of Sails, Auckland is famous for its huge number of yachts and other boats, and is home to more than a third of New Zealand's population.



### The kiwi

The national emblem of New Zealand, the flightless kiwi bird sleeps during the day and is closely related to the ostrich and the emu.



### Bungee jumping

Many tourists traveling through New Zealand will stop off for an attempt at bungee jumping, which was invented here.



### Maori

The original Polynesian inhabitants of New Zealand preserve many of their customs, including greeting each other with a hongi (rubbing noses).

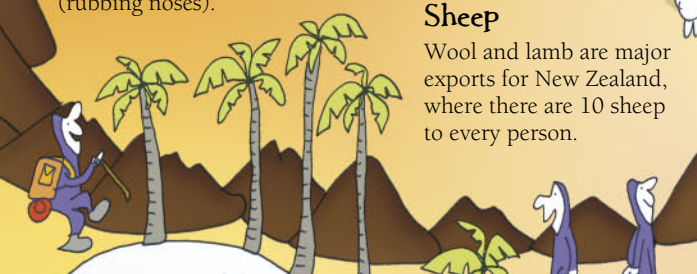
### Rugby

The All Blacks—the national rugby team—won the first Rugby World Cup in 1987 and continue to be one of the most successful teams in the world.

Touchdown!

### Geysers

New Zealand lies on a fault between two moving tectonic plates, resulting in its North Island being dotted with grand geysers, hot mud springs, and active volcanoes.

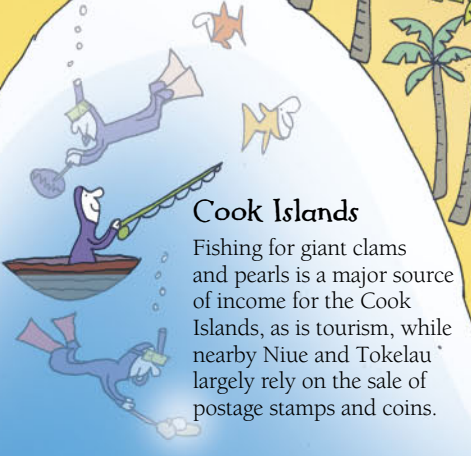


### Sheep

Wool and lamb are major exports for New Zealand, where there are 10 sheep to every person.

## New Zealand

Consisting of two large and many smaller islands, New Zealand lies some 992 miles (1,600km) southeast of Australia. Its South Island is mountainous, while North Island, where most people live, is more volcanic.

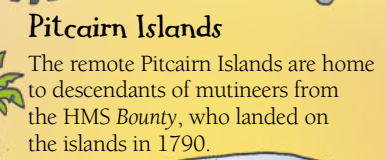


### Cook Islands

Fishing for giant clams and pearls is a major source of income for the Cook Islands, as is tourism, while nearby Niue and Tokelau largely rely on the sale of postage stamps and coins.

### French Polynesia

Nearly three-quarters of French Polynesia's population live on the island of Tahiti, although the territory includes some 130 other islands.



### Pitcairn Islands

The remote Pitcairn Islands are home to descendants of mutineers from the HMS *Bounty*, who landed on the islands in 1790.



### Easter Island

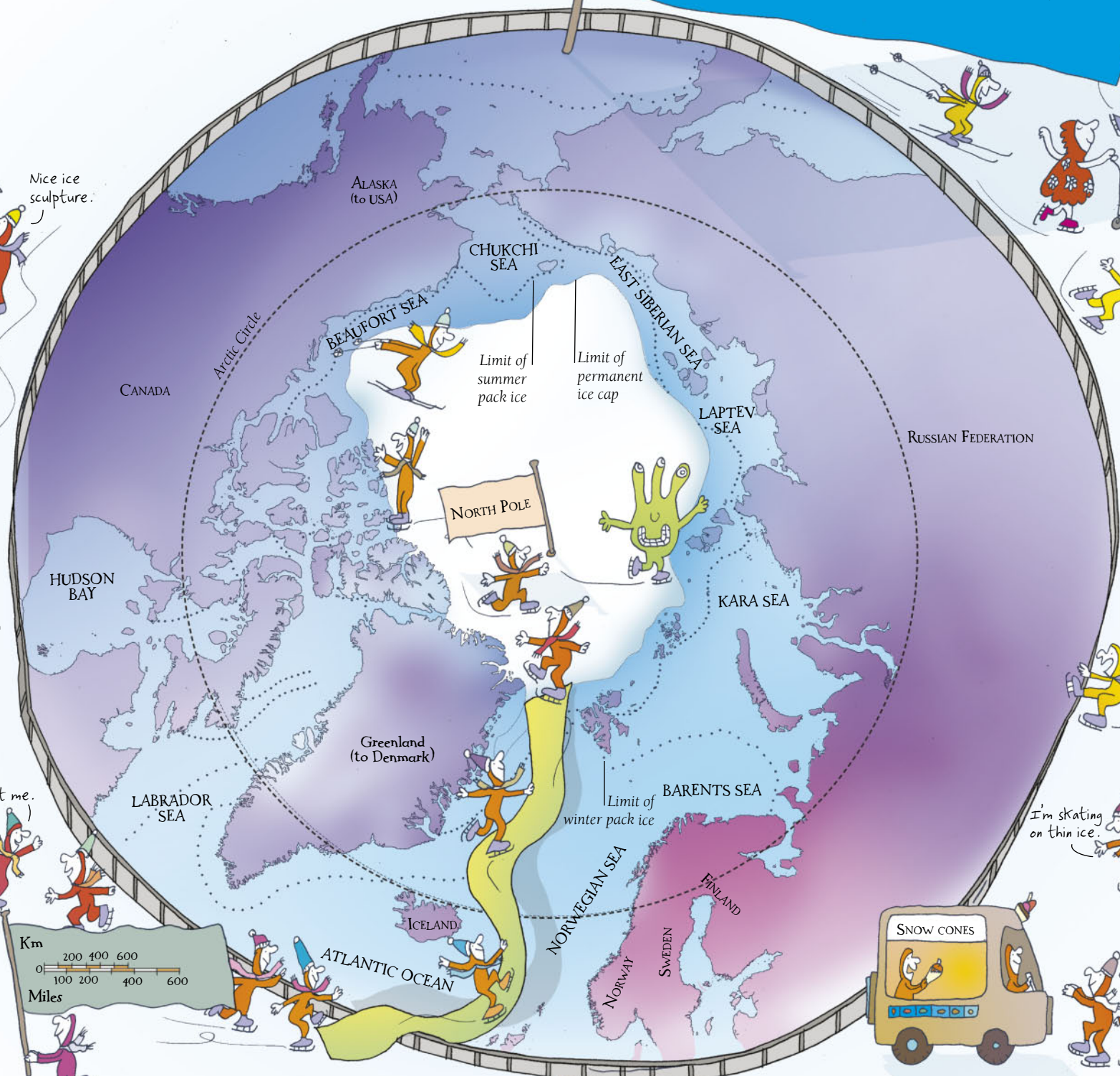
Discovered by Europeans on Easter Sunday, Easter Island boasts a series of impressive 400–900-year-old stone statues.

# POLAR REGIONS

The top and bottom of Earth are icy wildernesses, enduring long, dark winters with sub-zero temperatures. Neither region has a permanent population living there, although scientists and explorers visit both to find out more about these extraordinary places.

## Arctic Ocean

The North Pole sits on a thick cushion of ice that floats on top of the Arctic Ocean. This ice cap expands and shrinks throughout the year, reaching the coastlines of Canada, Alaska, and Russia in the winter months. During the summer, however, it retreats, allowing ships to sail around its edges.



### Icebreaker ships

Specially built ships with strengthened hulls clear a passage through the Arctic ice during the winter months to allow ships to sail around the southerly edges of the ocean.

### Arctic wildlife

The Arctic Ocean is mostly inhabited by mammals with thick layers of insulating blubber, such as whales and seals, as well as polar bears on its ice cap.





# Antarctica

The South Pole lies on a huge ice cap that sits on top of the frozen continent of Antarctica. In places the ice is more than 15,700ft (4,800m) thick, making it, on average, the world's highest continent. In 1959 the Antarctic Treaty set aside all territorial claims, preserving the continent for scientific research.

# Scientific research

There are more than 40 permanent and 100 temporary research stations in Antarctica. In 1985, British scientists using weather balloons discovered a hole in the ozone layer, directly above this unique continent.

# Antarctic wildlife

Large colonies of seabirds live in Antarctica, including the king penguin and other birds that are unique to the continent and breed only here. The seas around its shores are rich in fish, seals, and whales.

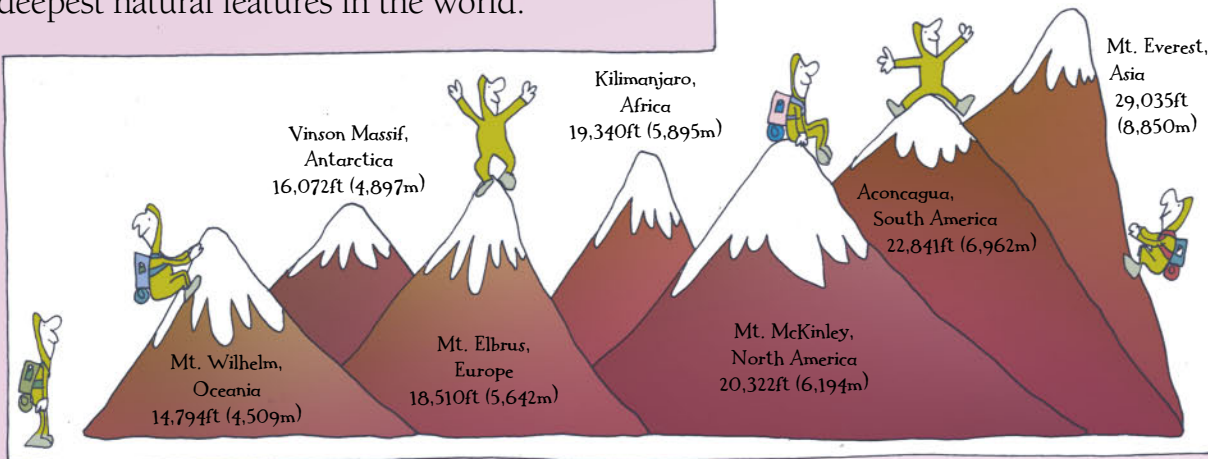


# COMPARATIVELY SPEAKING

Everyone likes compiling lists—their top 10 favorite books or CDs, or their top five places to visit. Geographers do it, too, compiling lists of the highest and longest, biggest and deepest natural features in the world.

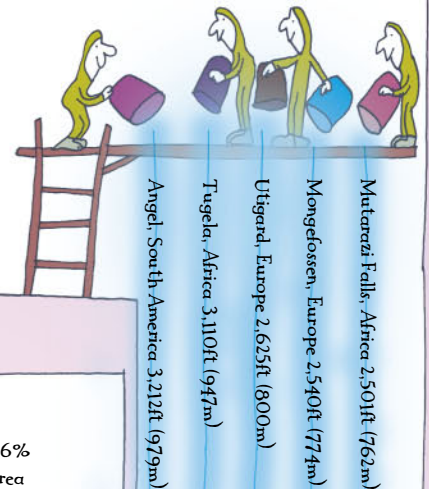
## Mountains

All 14 of the mighty mountains that are more than 26,256ft (8,000m) high are in the Himalayas, and all 109 mountains more than 23,630ft (7,200m) are in the mountain ranges of central Asia. Therefore, below is a comparison of the highest mountain of each continent.



## Waterfalls

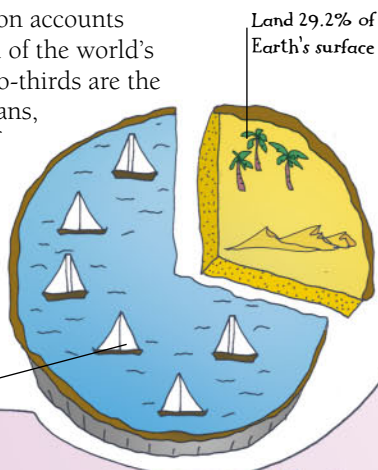
The height of a waterfall is measured by its vertical drop from top to bottom, although this fall can be broken by rocky outcrops on its way down. This causes disputes when comparing the heights, but every geographer agrees that Angel Falls in Venezuela is the world's highest waterfall.



## Land versus water

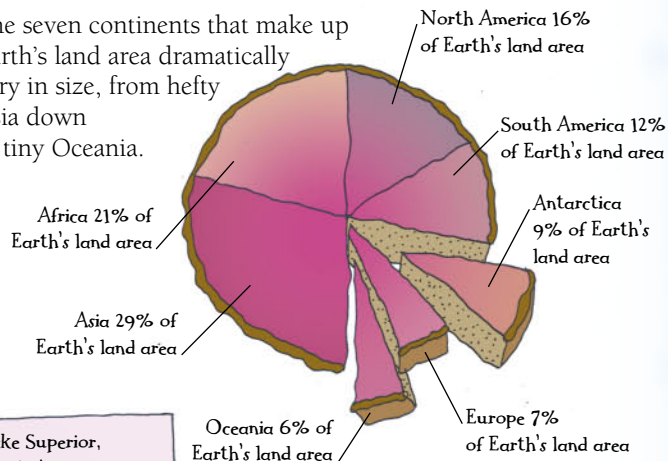
The land that we live on accounts for less than one-third of the world's surface; more than two-thirds are the watery habitats of oceans, seas, and lakes. And if sea levels continue to rise with global warming, this ratio will continue to increase.

Oceans and seas  
70.8% of Earth's surface



## Continents

The seven continents that make up Earth's land area dramatically vary in size, from hefty Asia down to tiny Oceania.



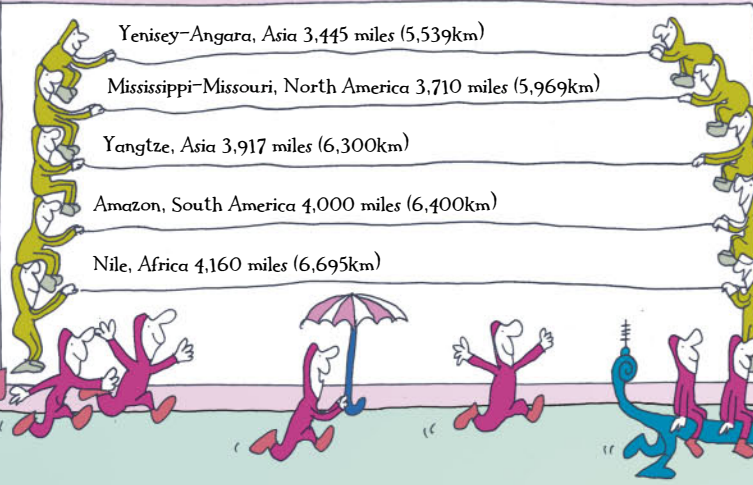
## Lakes

It is rather confusing that the world's largest lake is called a sea, but the Caspian Sea is, by any definition, a lake, since it is completely surrounded by land.

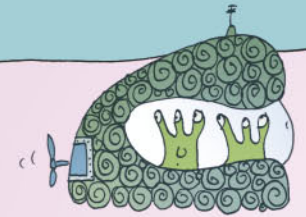


## Rivers

There is much debate about which river is really the longest—the Nile or the Amazon—due to irritating uncertainties about which tributary is the river's main source, and which direction the river takes through its delta to the sea. The Nile usually wins, but only barely!



# GLOSSARY



## Archipelago

A large group of islands.

## Asteroid

A small, rocky planet orbiting the Sun.

## Atmosphere

The thin layer of gases that surround Earth.

## Climate

The typical weather recorded in a place over a period of 30 years or more.

## Comet

An icy, rocky lump surrounded by a halo of gas and dust that orbits the Sun.

## Communism

A system of government in which the state owns and controls everything on behalf of the people.

## Continental plate

A tectonic plate that carries a continent.

## Continental shelf

The gently sloping part of the ocean floor nearest to the shore.

## Continental slope

The steep slope that leads from the continental shelf down to the continental rise and the seafloor.

## Coral reef

An underwater structure formed by the accumulation of millions of coral polyp skeletons.

## Crust

The hard outer shell of Earth.

## Current

A mass of water flowing just below the surface of the ocean.

## Delta

A fan-shaped, low-lying area of deposits at the mouth or end of a river.

## Dictatorship

A form of government that has absolute control over a country, headed by a single individual, the army, or by a single political party.

## Earthquake

A shaking of the ground caused by sudden movements in Earth's crust.

## Eclipse

The total or partial covering of one heavenly body by another. A solar eclipse occurs when the Moon passes between the Sun and Earth; a lunar eclipse occurs when Earth passes between the Sun and Moon.

## Equator

An imaginary line, midway between the two Poles, that divides the world into two equal halves, or hemispheres.

## Fault

A crack or fracture in Earth's rocks caused by moving tectonic plates.

## Geyser

A hot spring that throws up jets of boiling water and steam through a hole in Earth's crust.

## Glacier

A moving river of ice.

## Greenwich Prime Meridian

The line of 0° longitude, passing through Greenwich in London, from which the 24 time zones of the world are set.

## Hemisphere

The northern or southern half of the world.

## International Date Line

An imaginary line running down the length of the Pacific Ocean. When you cross it from west to east, you move the date on the calendar back one day to allow for the effect of the rotation of Earth around the Sun.

## Landlocked

A country that has no access to the sea.

## Latitude

The imaginary lines drawn parallel to the Equator that tell us how far north or south we are.

## Lava

Magma that has emerged onto Earth's surface.

## Longitude

The imaginary lines drawn around Earth from Pole to Pole that tell us how far east or west we are.

## Magma

Hot, molten rock—created by the partial melting of Earth's crust and mantle—that emerges onto Earth's surface through a volcano.

## Mantle

The soft interior of Earth that consists of solid rock and liquid magma and lies between Earth's core and its crust.

## Monarchy

A kingdom or country whose head of state is a king or queen.

## North Pole

The northern end of the axis around which Earth rotates.

## Ocean

A vast, open expanse of seawater.

## Ocean-basin floor

The deep part of the ocean beyond the continental shelf.

## Ocean floor

All Earth's surface that is covered by water.

## Oceanic plate

A tectonic plate that lies beneath an ocean.

## Oceanic trench

A long, deep dip in the ocean floor.

## Peninsula

A narrow strip of land projecting out into a sea or lake.

## Planet

A celestial body that revolves around a star, from which it receives light; Earth is a planet that revolves around a star we call the Sun.

## Republic

A country in which the people elect their head of state and government to rule them.

## River basin

A dip or depression in Earth's surface that is drained by one river and its tributaries.

## South Pole

The southern end of the axis around which Earth rotates.

## Steppe

A grassy, largely treeless plain.

## Tectonic plate

A plate that forms part of Earth's lithosphere – the rigid crust and upper mantle – and floats on the liquid mantle below.

## Theocracy

A country that is ruled by religious leaders and religious laws.

## Tornado

A small but intense spiraling windstorm formed beneath thunderclouds with wind speeds up to 250mph (400kph).

## Tributary

A small river that joins a larger one.

## Tropics

The area on either side of the Equator in which the midday Sun is generally overhead. The Tropic of Cancer is the line of latitude to the north of the tropics, the Tropic of Capricorn the line of latitude to the south.

## Tsunami

A huge ocean wave set off by an underwater earthquake at sea.

## Volcano

A gap in Earth's crust through which magma escapes.

## Weather

A region's daily changes in factors such as wind, rainfall, and temperature.



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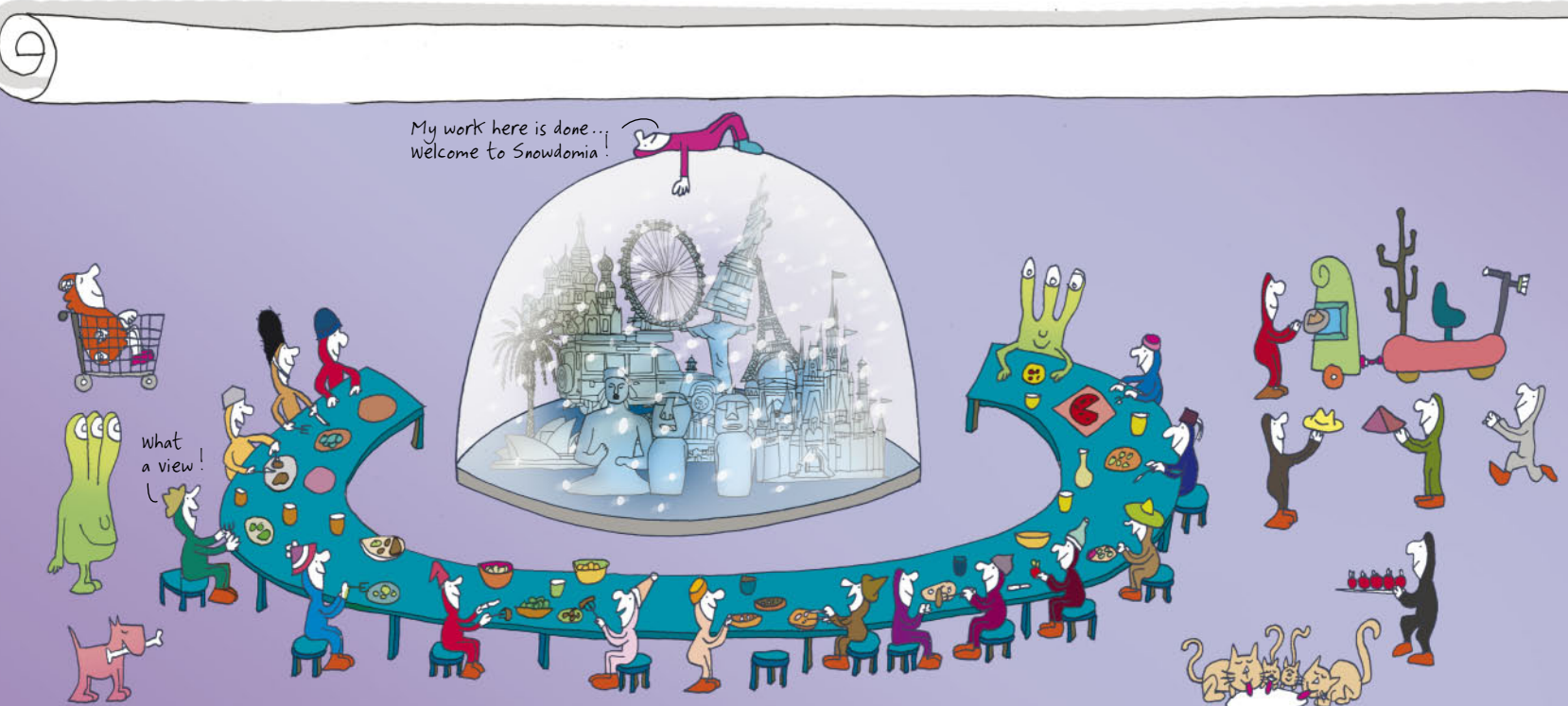
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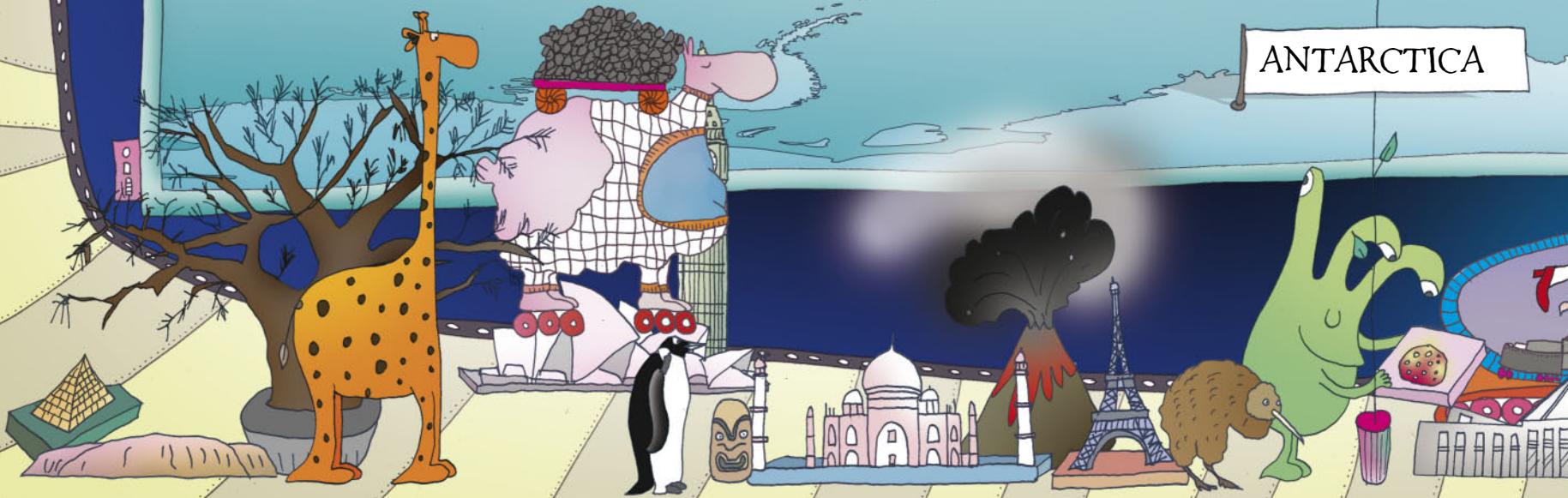
ATLANTIC OCEAN

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SOUTH AMERICA

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