



March - April 2012

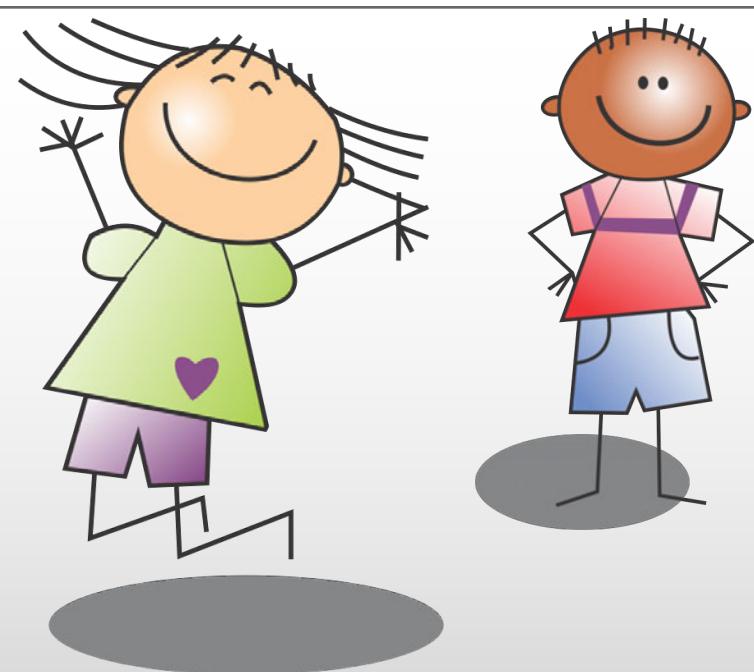
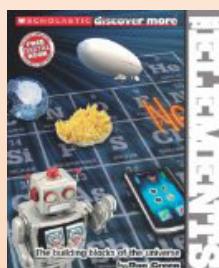
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Great Books for Kids

Learn about the elements on the periodic table with **Scholastic Discover More: The Elements**

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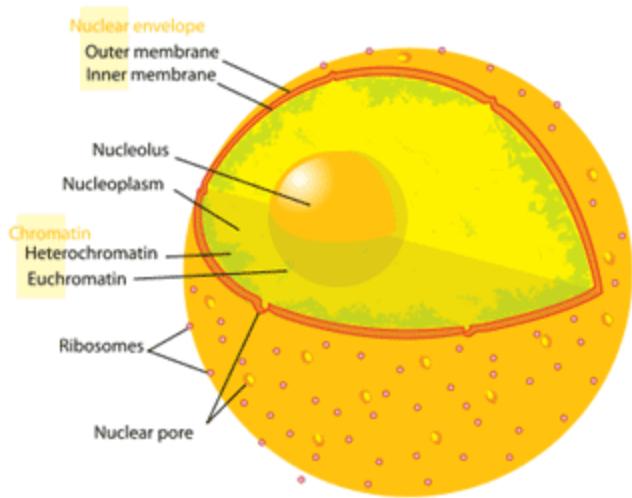
Parts of a Cell: Nucleus

Your brain controls everything your body does.

The nucleus of each cell controls everything that takes place in the cell. So, you can think of the nucleus as the brain of a cell.

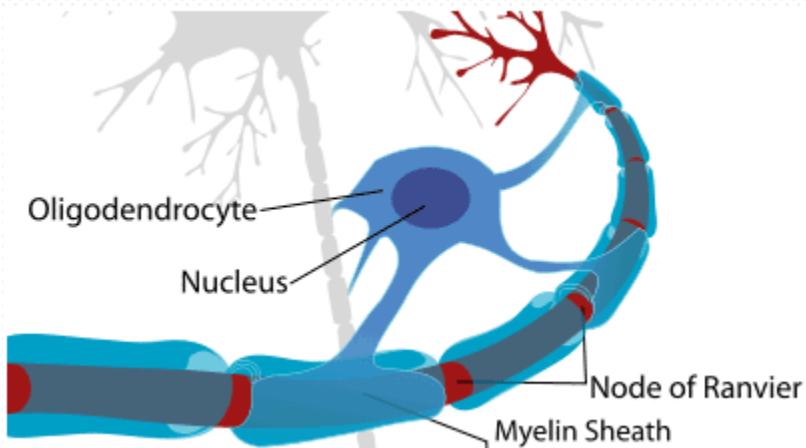
Have you ever followed instructions to figure out how to build something? Did you know that there are instructions in your body that show how to build you?

The nucleus of a cell contains something called DNA. DNA is like a set of instructions to build a plant or animal. Many cells in your body have the complete set of instructions that are needed to build you.



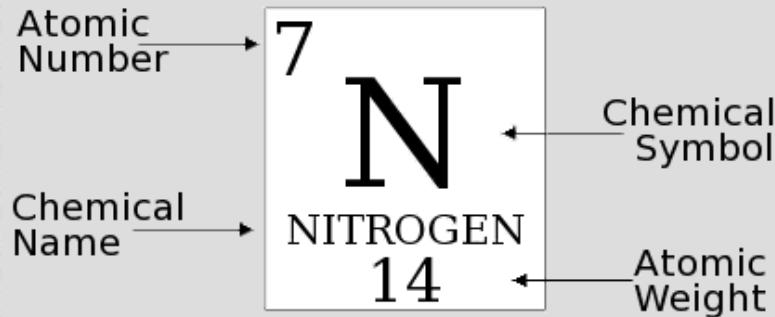
Nerve Cells

The cells that make up the nervous system are called nerve cells or **neurons**. Neurons come in many different shapes and sizes. The nervous system is made up of the brain, spinal cord and a network of nerves that span the entire body. Your nervous system allows you to taste, see, feel, breath, feel pain and run. Nerve cells or neurons carry "messages" between your brain and other parts of your body. If you cut your finger, a pain message or signal quickly gets sent to your brain. Your brain sends messages that direct your body to heal the cut.



Chemistry Corner

Hi, I'm the Periodic Table. Do you remember elements? Well, I list all the known elements. I am organized into rows, which go left to right, and columns, which go up and down. I was created by Dmitri Mendeleev. He decided to list all the elements in the rows by something called atomic number. Each one of the elements listed across me has an Atomic Number. There is also something called Atomic Weight listed on me.



The elements are listed by chemical symbol. If you want to learn the science of chemistry, you will have to learn the symbol for each element. H is the chemical symbol for hydrogen. O is the chemical symbol for oxygen. When you put two H elements with one O element, you get H_2O , also known as water.

1 H		AdQ		2 He											
3 Li	4 Be	BA													
11 Na	12 Mg	A													
19 K	20 Ca	B													
37 Rb	38 Sr	BD													
55 Cs	56 Ba	Eb.													
87 Fr	88 Ra														
Lanthanides		58 Ce	59 Pr	60 Nd	61 Pm	62 Sm	63 Eu	64 Gd	65 Tb	66 Dy	67 Ho	68 Er	69 Tm	70 Yb	71 Lu
Actinides		90 Th	91 Pa	92 U	93 Np	94 Pu	95 Am	96 Cm	97 Bk	98 Cf	99 Es	100 Fm	101 Md	102 No	103 Lr



James Monroe was the fifth president of the United States. He was born in the state of Virginia in 1758. In 1776, he left college to fight in the American Revolution.

He crossed the Delaware River with General George Washington to launch a surprise attack on enemy soldiers. They crossed the icy river on Christmas night in 1776 and marched to Trenton, New Jersey. The enemy soldiers called Hessians were taken by surprise and defeated.

Later Monroe studied law under Thomas Jefferson, who was the Governor of Virginia at the time. The two became good friends. Monroe was involved in the purchase of the

Louisiana territory from France. This was called the Louisiana Purchase. Monroe became president in 1817.

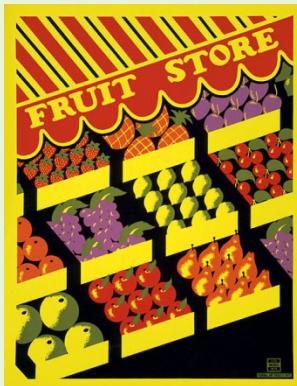
An important United States policy was named after him. It is called the Monroe Doctrine. It stated that any more attempts by European powers to colonize land in either North or South America would not be accepted by the United States. It also said that any interference in the affairs of countries in North or South America would be seen as an act of aggression.

He was married to Elizabeth Kortright and had two daughters.



Washington Crossing the Delaware by artist Emanuel Leutze. James Monroe is holding the flag.

Goods and Services



You probably remember that countries import and export goods. These goods are often carried on freight trains and container ships. You may remember that trading is buying and selling things. Lots of different kinds of goods are traded or bought and sold. **Goods** are things we can touch like toys, furniture, books, coal, clothes, food and electronics.

People also buy and sell **services**. Services are things that are done for you. When you get a haircut, you are buying a service. When your parents pay someone to wash the car, they are buying a service. There are lots of service providers like doctors, dentists, lawyers, plumbers, electricians and house painters.

Goods are called **tangible** because you can touch them. You can give a good to someone else. A book is tangible because you can hold it or give it to a friend.



Services are called **intangible**. You can't touch them. You can't give them to someone else. A haircut is intangible because you can't hold it. You can't give your haircut to a friend.



A haircut is a service. It is intangible.



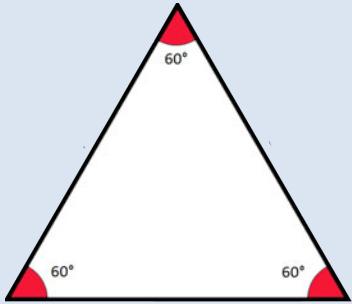
A book is a good. It is tangible.

TRIANGLES



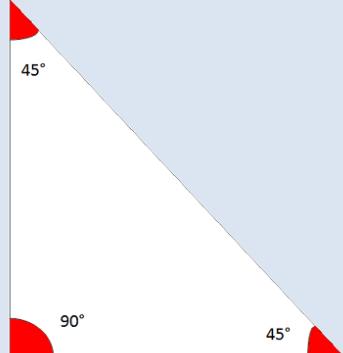
There are different kinds of triangles. Triangles have three sides. The **tri** in triangle means three. Triangles also have three angles. These are the areas colored in red. Angles are measured in degrees ($^{\circ}$). The degrees in a triangle will always add up to 180° . Congruent is a word that means the same size.

Equilateral Triangle



The **equi** in equilateral means equal or the same. **Lateral** means side. So, all sides in an equilateral triangle are the same size. All sides and angles are congruent. Each angle is 60° . $60^{\circ} + 60^{\circ} + 60^{\circ} = 180^{\circ}$.

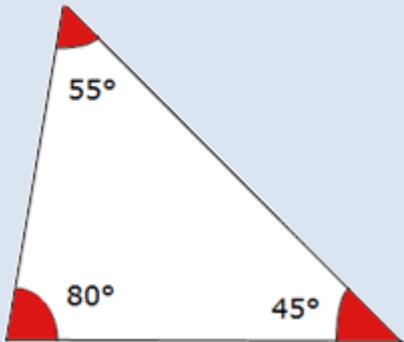
Isosceles Triangle



In an isosceles triangle, two of the angles are the same size. One is a different size. So, only two sides and two angles in an isosceles triangle are congruent. The pictured triangle has two 45° angles and one 90° angle.

$$45^{\circ} + 45^{\circ} + 90^{\circ} = 180^{\circ}$$

Scalene Triangle



Scalene triangles have no equal or congruent sides. All three angles must still add up to 180° . If you look at the degrees in the scalene triangle, you will see that the numbers are all different. But all three still add up to 180° .

$$55^{\circ} + 80^{\circ} + 45^{\circ} = 180^{\circ}$$

The Continents: Australia

Australia is both a continent and a country. The continent of Australia includes several islands,

such as Tasmania. The native peoples who first lived in Australia are called aborigines. In 1770, an English explorer Captain James Cook claimed Australia for the British Crown. Australia is still part of a group of countries called the British Commonwealth. The British queen is also the Queen of Australia.



Australia has states or provinces called New South Wales, Queensland, South Australia, Western Australia, Victoria and Tasmania. The capital city Canberra is located in a very small area called the Australian Capital Territory.

Most Australians live in large cities along the coast. The most populated cities in the country are Sydney, Melbourne, Brisbane, Perth and Adelaide. Some Australians live in an area of the country called the Outback. Many areas in the Outback are very isolated and remote. This means they are far away from other places.



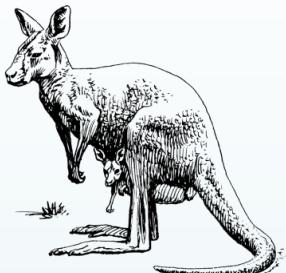
The City of Brisbane in Queensland

The longest river in Australia is called the Murray River (also the River Murray). Mount Kosciuszko is the tallest mountain. Deserts cover large areas of Australia. The Great Victoria Desert and the Great Sandy Desert are the largest.

The native people of Australia are called Aborigines. They have lived in Australia for 50,000 years. When British settlers came to Australia, they took away a lot of aboriginal land to use for farming. European settlers also brought epidemic diseases like measles, smallpox and tuberculosis (TB). These were diseases the native or indigenous populations had never been exposed to before. So, they had no immunity. Diseases killed large numbers of aborigines and led to a big decline in the aboriginal population. Aborigines now make up less than 3 percent of Australia's population.

Animals of Australia

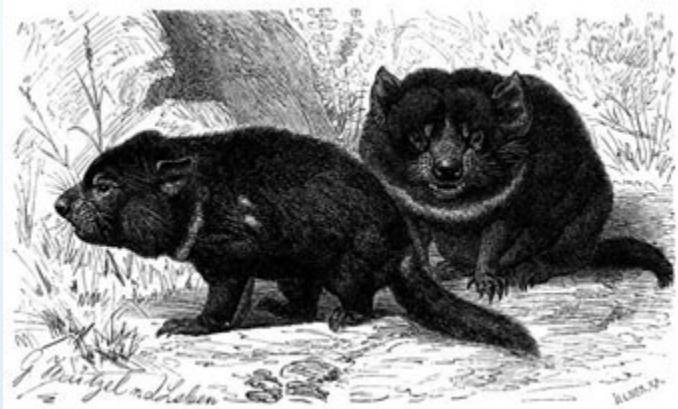
Australia is famous for its unusual animals, such as the kangaroo, koala, platypus, emu, wombat, wallaby, echidna, and Tasmanian devil.



Kangaroos are marsupials.

Marsupials are animals that carry babies in pouches. A baby kangaroo is called a joey.

Kangaroos use their tails for balance.



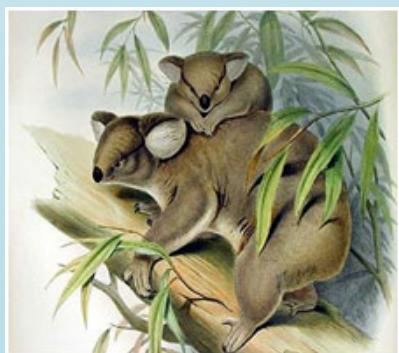
Tasmanian Devils are only found in Tasmania, an island that is part of Australia. They aren't dangerous unless cornered. They are marsupials. Many Tasmanian Devils are dying from a disease called Devil Facial Tumour Disease (DFTD), which puts them at risk of extinction.



The platypus is one of the two types of mammals that lay eggs.

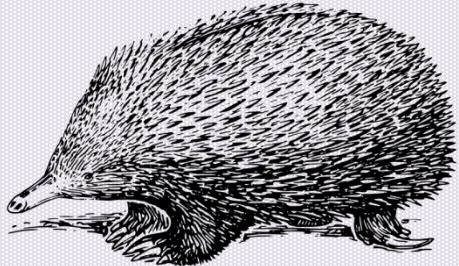
Mammals that lay eggs are called monotremes. The platypus has a duck-like bill and webbed feet. Platypuses live in burrows. They swim in ponds and streams.

Platypus means "flat footed."



Koalas are nocturnal animals. They sleep most of the day and are awake at night. They are arboreal, which means they live in trees.

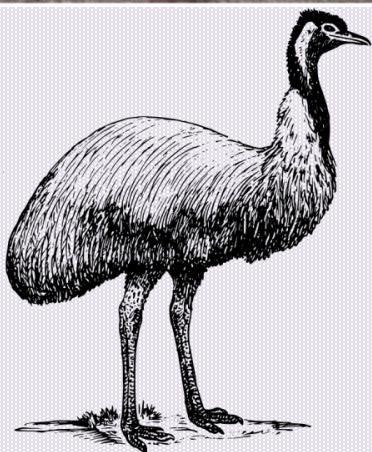
They mainly eat eucalyptus leaves and bark. Koalas are sometimes called koala bears. But they aren't bears. They are marsupials.



Like the platypus, the echidna is a monotreme or egg laying mammal. They are covered in spines. The echidna has a long, sticky tongue that it uses to eat ants and termites.



Wombats are burrowing, nocturnal animals. They are marsupials with thick fur. Wombats are herbivores or plant eaters. They eat grass, tree roots and moss. They take dust baths to stay clean.



The emu is the second largest bird. The largest is the ostrich. The emu is part of a family of flightless birds called Ratites. Other Ratites includes the ostrich and kiwi. They eat grain, flowers, berries and insects. They run very fast.



Wallabies are members of the kangaroo family but they are much smaller. They are also marsupials and their babies are called joeys. Wallabies are herbivores that eat grass and other plants. They also use their tails for balance.



Aboriginal people created paintings, drawings and engravings on sheltered rock surfaces thousands of years ago. These paintings, engravings and drawings are called rock art. The pictures show things like small stick figures, kangaroos, emus and animals tracks. Some show lines, dots and hand prints.

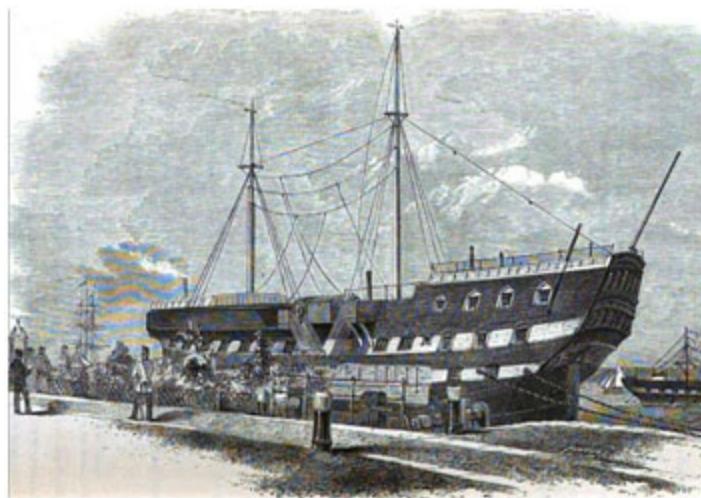
The aboriginal artists used colors made from different types of clay. They ground up the clay and added water. They painted pictures using their fingers or brushes made with feathers. Stone tools were used to make engravings in the rock.

It isn't known why ancient aboriginal people created rock art. It may have been part of religious rituals. Or it may have been done to record important events.

Because rock art was created on outdoor rocks, there is a risk of erosion wearing away these artworks. Erosion is the wearing away of rock by wind or rain. The government of Australia wants to protect the rock art but many are in very remote areas. This makes it difficult to protect them.

Convicts in Australia

When the British took over Australia, they decided to use it as a penal colony. A penal colony is a faraway place where prisoners are sent. Some people who were convicted of crimes in Britain, Ireland and the British colonies were taken to Australia to serve their prison sentences.



Prison Ship

Australia is thousands of miles away from Britain and Ireland. It took six months for the prisoners to reach Australia in prison ships. They were often chained underneath the deck during the whole voyage. Some died on the way. Many of the convicts weren't violent criminals. Some were poor people who had stolen food. Some were children. When their sentences were up, many prisoners couldn't afford to return home. So, they had to remain in

Australia and earn a living.



Convict Ploughing Team

About 20% of Australians are the descendants of convicts. A former Australian prime minister named Kevin Rudd found out that his great-great-great-great grandmother had been a convict. She was sentenced to

be hanged at the age of 12 for stealing another girl's clothes. Instead she was sent to Australia. His great-great-great grandfather was sent to Australia for stealing a bag of sugar. Many Australians are proud of their convict history.

Flying Doctors and Schools of the Air

Most Australians live in cities along the coasts. The interior or inside of Australia is called the Outback. Few people live in the Outback. People who live in the Outback work in agriculture (farming), tourism and mining. Faraway health and education services support the needs of these remote communities.

The populations of many areas are too small to have schools. Many children live on remote cattle and sheep farms or in aboriginal communities. So, children receive their educations through a program called School of the Air. Children spend about an hour receiving group or individual lessons from a faraway teacher and then do assigned lessons with a parent, older sibling or tutor. Different schools serve various remote regions of the country. Teachers usually visit students from time to time. They have to travel hundreds of miles to visit all of their students. The teachers used to use two-way radios to communicate with students. Satellite networks are used now to provide lessons with computers. Some children even take music lessons this way.

Many areas in Australia are too small to have doctors or hospitals. The Royal Flying Doctor Service of Australia (RFDS), also known as The Flying Doctor, provides medical services to people living in remote areas of Australia. The RFDS brings doctors, nurses and dentists to regular clinics to provide health services to remote residents. The service also provides emergency transport to hospitals.



The Main Street of Winton, an Outback town located in Queensland



A Royal Flying Doctor Service Airplane Image Courtesy: [YSSYguy at en.wikipedia](#)

Famous Landmark: Uluru (Ayers Rock)



Uluru, also known as Ayers Rock, is an enormous rock formation located in Australia, in the Northern Territory. It is made of sandstone rock. It is a popular tourist attraction and a sacred site to the local aboriginal population. This has led to some problems. Tourists like to climb the rock. The aborigines believe that climbing the rock is disrespecting a sacred site.

Tourists climb Uluru using rope handholds. It is a very steep climb and more difficult than some people expect. People have died during the climb, either from falls or heart failure.

Famous Landmark: The Sydney Opera House



The Sydney Opera House is a famous building in Australia. It is located in the city of Sydney in an area called Sydney Harbor. Visitors can take tours inside the building. The Sydney Opera House is a performance arts center. Performing arts include music, dance and plays. There are also restaurants and shops inside. It has about 1000 rooms, five theatres and five rehearsal studios.



Banjo Paterson was a famous Australian poet and songwriter. He was born in New South Wales in 1864. His real name was Andrew Barton Paterson. When he finished school he worked as a solicitor (lawyer).

His poems were first published in a newspaper. Later he published books of poetry. He is one of Australia's most popular poets. His poetry books are still in print.

He wrote a very famous Australian song called "Waltzing Mathilda." The lyrics were written in 1895.

Explanation of terms used in the song Waltzing Mathilda:

Mathilda - a bag carried on the back

Swagman - a person who travels around looking for work.

Billabong - a lake

Coolibah tree - a type of eucalyptus tree

Jumbuck - a sheep

Billy - a can used to boil water

Tucker bag - a bag used for carrying food

Troopers - policemen

Squatter - farmer

Waltzing Matilda

Once a jolly swagman camped by a
billabong
Under the shade of a coolibah tree,
And he sang as he watched and waited
till his billy boiled
"You'll come a-Waltzing Matilda, with
me."

Waltzing Matilda, Waltzing Matilda
"You'll come a-Waltzing Matilda, with
me"
And he sang as he watched and waited
till his billy boiled,
"You'll come a-Waltzing Matilda, with
me."

Down came a jumbuck to drink at that
billabong,
Up jumped the swagman and grabbed
him with glee,
And he sang as he shoved that jumbuck
in his tucker bag,
"You'll come a-Waltzing Matilda, with
me."

Waltzing Matilda, Waltzing Matilda
"You'll come a-Waltzing Matilda, with
me"
And he sang as he shoved that jumbuck
in his tucker bag,
"You'll come a-Waltzing Matilda, with
me."

Up rode the squatter, mounted on his
thoroughbred,
Down came the troopers, one, two,
three,
"Where's that jolly jumbuck you've got
in your tucker bag?"
"You'll come a-Waltzing Matilda, with
me."

Waltzing Matilda, Waltzing Matilda
"You'll come a-Waltzing Matilda, with
me"
"Where's that jolly jumbuck you've got
in your tucker bag?",
"You'll come a-Waltzing Matilda, with
me."

Up jumped the swagman and sprang
into the billabong,
"You'll never take me alive", said he,
And his ghost may be heard as you pass
by that billabong,
"You'll come a-Waltzing Matilda, with
me."

Waltzing Matilda, Waltzing Matilda
"You'll come a-Waltzing Matilda, with
me"
And his ghost may be heard as you pass
by that billabong,
"You'll come a-Waltzing Matilda, with
me."

Musical Instruments: The Didgeridoo

Musical instruments fall into different groups: strings, woodwind, brass, percussion and keyboard. Which group do you think the didgeridoo should be in? The didgeridoo is a woodwind instrument. It was created by the indigenous people of Australia more than a thousand years ago.



Atoms

The atom has three basic parts
Electrons, protons, neutrons
You can easily learn by heart
Electrons, protons, neutrons

Some atoms have a lot of these
Electrons, protons, neutrons
Some have just a few of each
Electrons, protons, neutrons

Physics Corner

Energy is the ability to do work or cause changes. It's all around you but you can't always see it. Electricity, heat, light and sound are all forms of energy. Energy can be changed from one form to another. Plants use light energy from the sun to make food energy. This is called photosynthesis. Energy is needed to run, jump and play. It is needed to make cars move. Lights, televisions and refrigerators require energy to work.

Potential and Kinetic Energy

Anything that moves has energy. There are two types:

- Stored or potential energy
- Working or kinetic energy

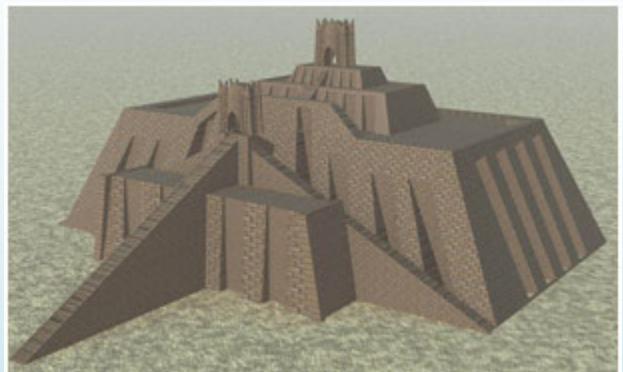
The foods you eat consist of chemical energy. This energy is stored in your body. It is potential energy. When you move, the potential energy is converted to kinetic energy.

Renewable and Nonrenewable Energy

Renewable energy can be replenished. This means that more of it can be made. Nonrenewable energy will eventually be used up and we won't be able to make more of it. Solar, wind and hydropower (energy created using moving water) are all types of renewable energy. Oil, coal and natural gas will all be used up at some point. They are nonrenewable.

The First City-States

The first farmers settled down and villages formed. Later some small farming villages grew into large cities. Each city was known as a city-state. A city-state is a city that rules itself. Each city had its own leaders. There were no outside rulers. The first city-states were in an area called Sumer. Sumer was in Mesopotamia.



Some of these city-states were Ur, Kish, Uruk and Eridu. A temple, called a ziggurat, was at the center of the city. The ziggurats were built to honor the Sumerian gods and goddesses.

Other city buildings included government buildings, stores, workshops, schools and houses. The Sumerians used sun-dried mud bricks to construct their buildings. Farming took place outside the city walls. When enemies attacked everyone went inside the

walls. The various city-states regularly fought each other.

The Dog and His Reflection



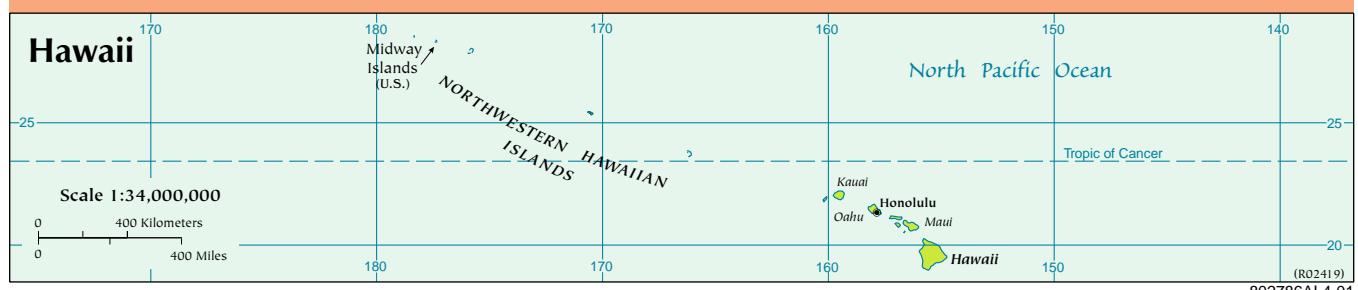
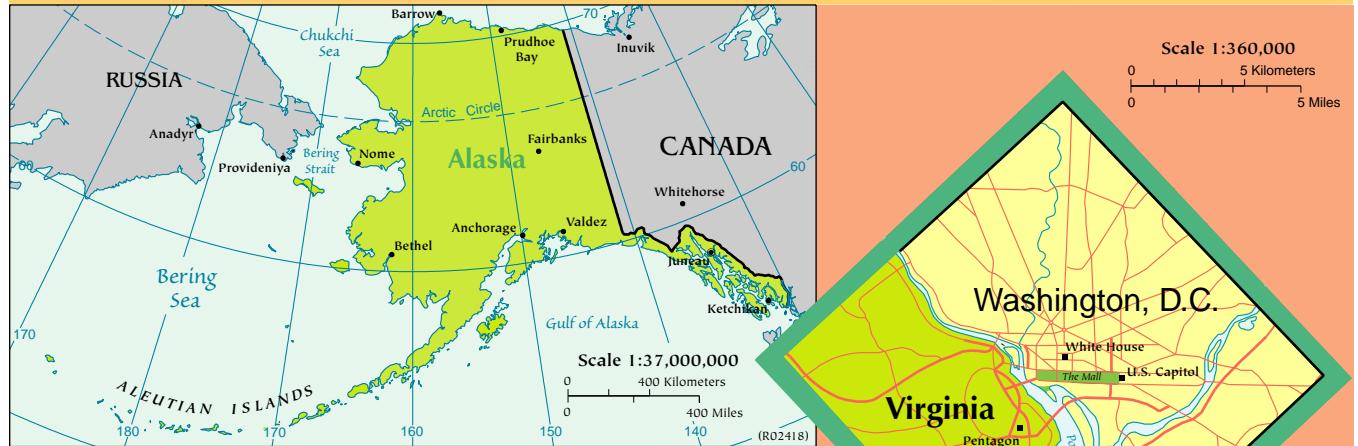
A dog was walking home with a big piece of meat in his mouth. As he crossed a bridge, he looked down and saw himself reflected in the water. He thought his reflection was another dog carrying an even bigger piece of meat. When he opened his mouth to grab the meat from the other dog, his dinner fell into the river.

Moral: It is foolish to be greedy.

Alphabetical States

There are 50 states in the USA. Go to the next page and find the states that begin with the letter I. They are Idaho, Illinois, Indiana and Iowa.

UNITED STATES



The Sing-Song of Old Man Kangaroo

From Just So Stories by Rudyard Kipling

Outcrop – type of rock formation

Spinifex – type of grass

Dingo – wild dog native to Australia

Mulga – an Australian shrub or small tree

Flinders – Australian mountain range

Darling Downs – a farming region in Australia

NOT always was the Kangaroo as now we do behold him, but a Different Animal with four short legs. He was grey and he was woolly, and his pride was inordinate: he danced on an outcrop in the middle of Australia, and he went to the Little God Nqa.

He went to Nqa at six before breakfast, saying, 'Make me different from all other animals by five this afternoon.'

Up jumped Nqa from his seat on the sandflat and shouted, 'Go away!'

He was grey and he was woolly, and his pride was inordinate: he danced on a rock-ledge in the middle of Australia, and he went to the Middle God Nquing.

He went to Nquing at eight after breakfast, saying, 'Make me different from all other animals; make me, also, wonderfully popular by five this afternoon.'

Up jumped Nquing from his burrow in the spinifex and shouted, 'Go away!'

He was grey and he was woolly, and his pride was inordinate: he danced on a sandbank in the middle of Australia, and he went to the Big God Nqong.

He went to Nqong at ten before dinner-time, saying, 'Make me different from all other animals; make me popular and wonderfully run after by five this afternoon.'

Up jumped Nqong from his bath in the salt-pan and shouted, 'Yes, I will!'

Nqong called Dingo—Yellow-Dog Dingo—always hungry, dusty in the sunshine, and showed him Kangaroo. Nqong said, 'Dingo! Wake up, Dingo! Do you see that gentleman dancing on an ashpit? He wants to be popular and very truly run after. Dingo, make him SO!'

Up jumped Dingo—Yellow-Dog Dingo—and said, 'What, that cat-rabbit?'

Off ran Dingo—Yellow-Dog Dingo—always hungry, grinning like a coal-scuttle,—ran after Kangaroo.

Off went the proud Kangaroo on his four little legs like a bunny.

This, O Beloved of mine, ends the first part of the tale!

He ran through the desert; he ran through the mountains; he ran through the salt-pans; he ran through the reed-beds; he ran through the blue gums; he ran through the spinifex; he ran till his front legs ached.

He had to!

Still ran Dingo—Yellow-Dog Dingo—always hungry, grinning like a rat-trap, never getting nearer, never getting farther,—ran after Kangaroo.

He had to!

Still ran Kangaroo—Old Man Kangaroo. He ran through the ti-trees; he ran through the mulga; he ran through the long grass; he ran through the short grass; he ran through the Tropics of Capricorn and Cancer; he ran till his hind legs ached.

He had to!

Still ran Dingo—Yellow-Dog Dingo—hungrier and hungrier, grinning like a horse-collar, never getting nearer, never getting farther; and they came to the Wollgong River.

Now, there wasn't any bridge, and there wasn't any ferry-boat, and Kangaroo didn't know how to get over; so he stood on his legs and hopped.

He had to!

He hopped through the Flinders; he hopped through the Cinders; he hopped through the deserts in the middle of Australia. He hopped like a Kangaroo.

First he hopped one yard; then he hopped three yards; then he hopped five yards; his legs growing stronger; his legs growing longer. He hadn't any time for rest or refreshment, and he wanted them very much.

Still ran Dingo—Yellow-Dog Dingo—very much bewildered, very much hungry, and wondering what in the world or out of it made Old Man Kangaroo hop.

For he hopped like a cricket; like a pea in a saucepan; or a new rubber ball on a nursery floor.

He had to!

He tucked up his front legs; he hopped on his hind legs; he stuck out his tail for a balance-weight behind him; and he hopped through the Darling Downs.

He had to!

Still ran Dingo—Tired-Dog Dingo—hungrier and hungrier, very much bewildered, and wondering when in the world or out of it would Old Man Kangaroo stop.

Then came Nqong from his bath in the salt-pans, and said, 'It's five o'clock.'

Down sat Dingo—Poor Dog Dingo—always hungry, dusky in the sunshine; hung out his tongue and howled.

Down sat Kangaroo—Old Man Kangaroo—stuck out his tail like a milking-stool behind him, and said, 'Thank goodness that's finished!'

Then said Nqong, who is always a gentleman, 'Why aren't you grateful to Yellow-Dog Dingo? Why don't you thank him for all he has done for you?'

Then said Kangaroo—Tired Old Kangaroo—He's chased me out of the homes of my childhood; he's chased me out of my regular meal-times; he's altered my shape so I'll never get it back; and he's played Old Scratch with my legs.'

Then said Nqong, 'Perhaps I'm mistaken, but didn't you ask me to make you different from all other animals, as well as to make you very truly sought after? And now it is five o'clock.'

'Yes,' said Kangaroo. 'I wish that I hadn't. I thought you would do it by charms and incantations, but this is a practical joke.'

'Joke!' said Nqong from his bath in the blue gums. 'Say that again and I'll whistle up Dingo and run your hind legs off.'

'No,' said the Kangaroo. 'I must apologise. Legs are legs, and you needn't alter 'em so far as I am concerned. I only meant to explain to Your Lordliness that I've had nothing to eat since morning, and I'm very empty indeed.'

'Yes,' said Dingo—Yellow-Dog Dingo,—'I am just in the same situation. I've made him different from all other animals; but what may I have for my tea?'



Then said Nqong from his bath in the salt-pan, 'Come and ask me about it tomorrow, because I'm going to wash.'

So they were left in the middle of Australia, Old Man Kangaroo and Yellow-Dog Dingo, and each said, 'That's your fault.'

*THIS is the mouth-filling song
Of the race that was run by a Boomer,
Run in a single burst—only event of its kind—
Started by big God Nqong from Warrigaborrigarooma,
Old Man Kangaroo first: Yellow-Dog Dingo behind.*

*Kangaroo bounded away,
His back-legs working like pistons—
Bounded from morning till dark,
Twenty-five feet to a bound.
Yellow-Dog Dingo lay
Like a yellow cloud in the distance—
Much too busy to bark.
My! but they covered the ground!*

*Nobody knows where they went,
Or followed the track that they flew in,
For that Continent
Hadn't been given a name.
They ran thirty degrees,
From Torres Straits to the Leeuwin
(Look at the Atlas, please),
And they ran back as they came.*

*S'posing you could trot
From Adelaide to the Pacific,
For an afternoon's run
Half what these gentlemen did
You would feel rather hot,
But your legs would develop terrific—
Yes, my importunate son,
You'd be a Marvellous Kid!*