

LITTLE EXPLORERS

DINOSAURS

LIFT THE FLAPS
TO EXPLORE
THE DINO WORLD
INSIDE AND OUT!



TRICERATOPS

HORNS

THICK TAIL



NEST



T-REX

BIG TEETH

TWO FINGERS

SHARP CLAWS



WINGS

PTERANODON

GIANT SKULL



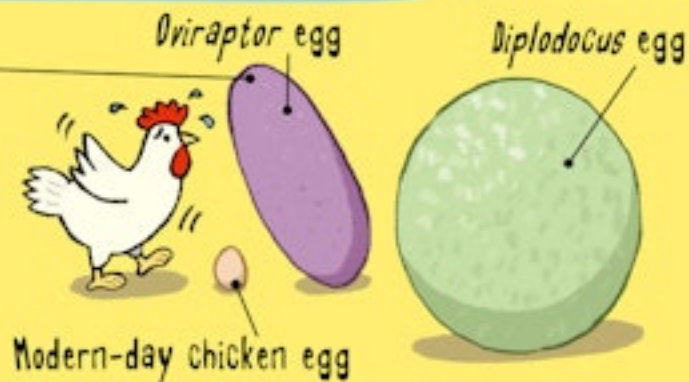
MORE THAN
30 FLAPS!

BABY DINOSAURS

All baby dinosaurs hatched from eggs, but not every egg looked the same. They came in different shapes and sizes, but they all had hard shells to keep the babies growing inside safe until they hatched.

Dinosaur eggs

The biggest eggs were laid by mighty plant eaters, like *Diplodocus*. Their eggs were round and as big as a basketball. *Oviraptor*, and other meat eaters, mostly laid smaller, oval-shaped eggs.



Nesting

Maiasaura laid around 25 eggs in a huge nest made from a mound of mud. They nested in groups, so they could share babysitting duties.

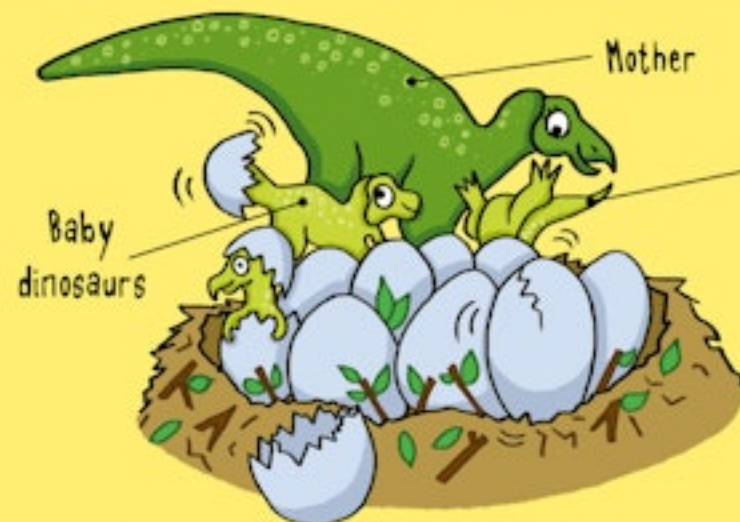


Warm nest lining

Cosy blanket



Oops!



Good parenting

The name *Maiasaura* means 'good mother lizard'. It got this name because it stayed with its eggs and looked after its young until they were big enough to leave the nest.

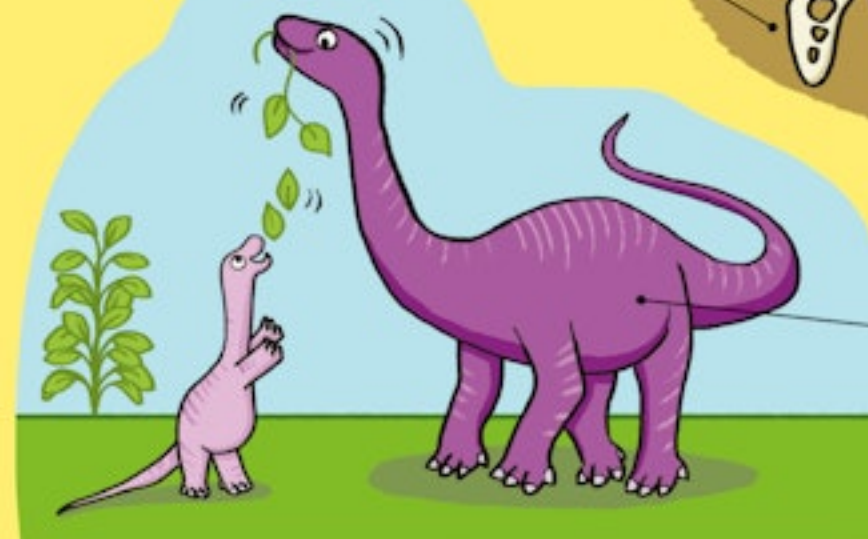
Oviraptor skeleton



Eggs

Egg hunter

Oviraptor means 'egg hunter'. This small dinosaur was given its name because its bones were found among eggs. At first, people thought that the dinosaur must have been stealing them.

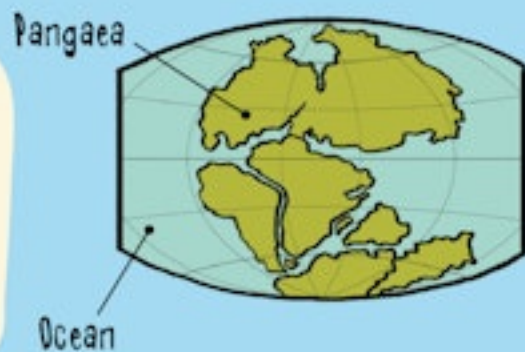


Growth spurt

Baby dinosaurs looked like their parents, but were much smaller. A baby *Apatosaurus* weighed about the same as an adult goose, but by the time it was fully grown it weighed more than six African elephants!

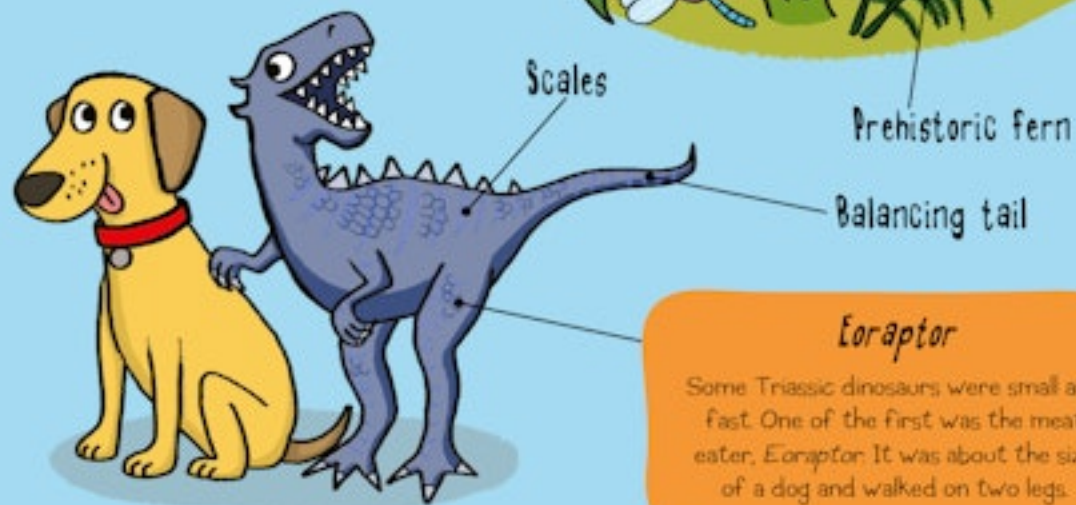
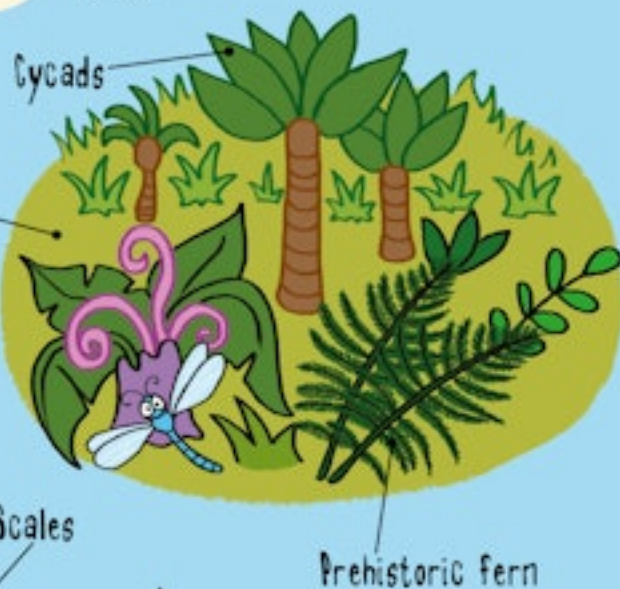
TRIASSIC TIMES

Dinosaurs first appeared on Earth in the Triassic period, which lasted from around 250 to 200 million years ago. At the beginning of the Triassic period the world was a very different place. The continents were joined together in one giant landmass, called Pangaea, which was surrounded by a vast ocean.



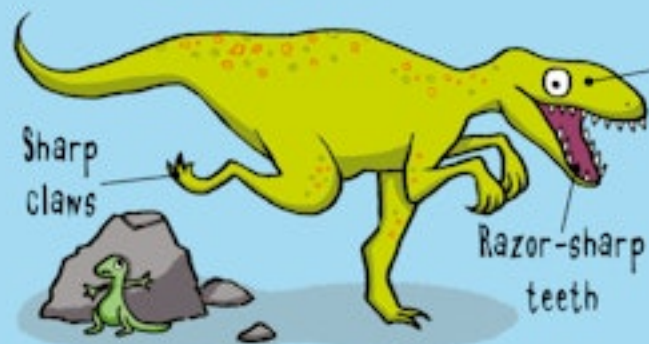
Prehistoric landscape

It was so hot and dry that most of the planet was covered in desert. The plants that grew were strange prehistoric ferns and palm-like trees, called cycads.



Eoraptor

Some Triassic dinosaurs were small and fast. One of the first was the meat eater, Eoraptor. It was about the size of a dog and walked on two legs.

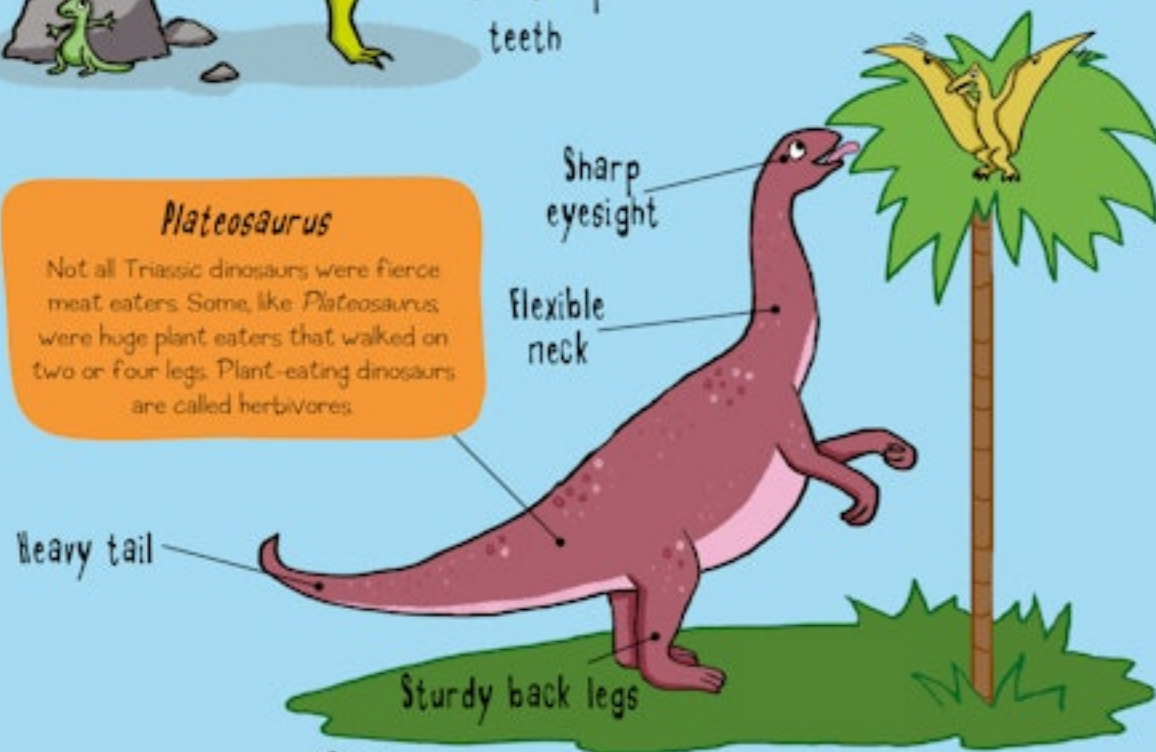


Herrerasaurus

This dinosaur was one of the largest predators of its time. It was as long as a car and weighed as much as a Nile crocodile. Meat-eating dinosaurs like this one are called carnivores.

Plateosaurus

Not all Triassic dinosaurs were fierce meat eaters. Some, like Plateosaurus, were huge plant eaters that walked on two or four legs. Plant-eating dinosaurs are called herbivores.



Liliensternus

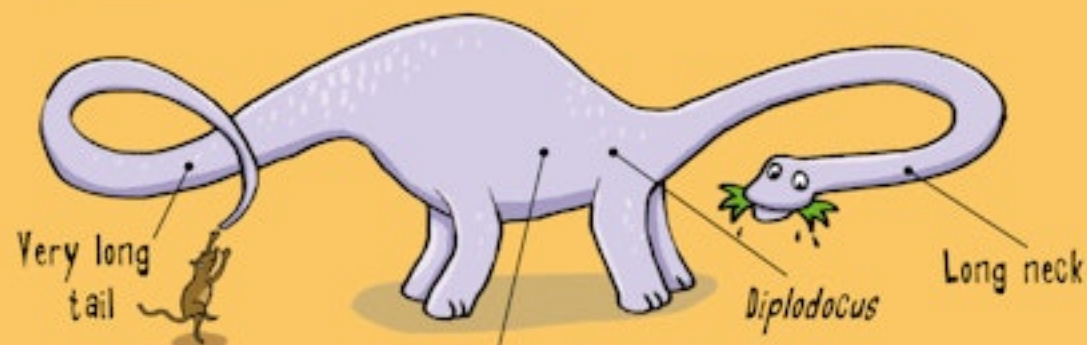
These crested dinosaurs were ferocious fast-moving predators. They probably preyed on much slower dinosaurs, such as Plateosaurus.



JURASSIC TIMES

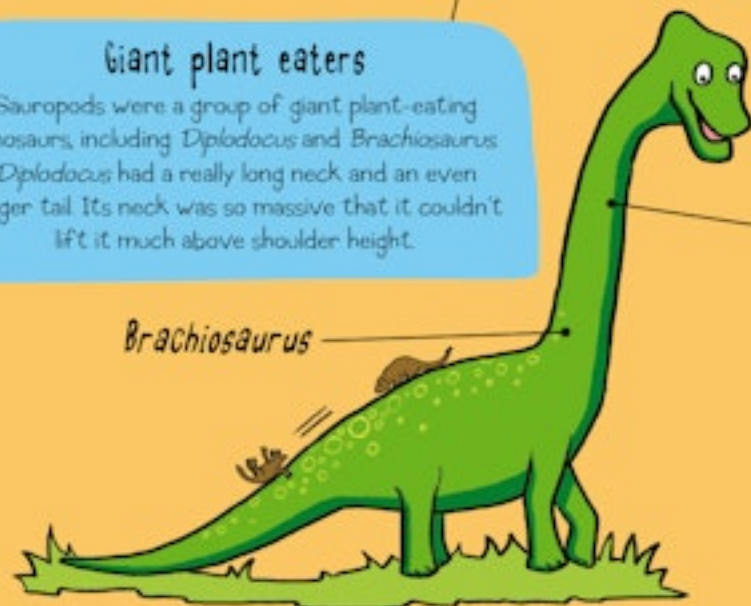
The Jurassic period was the 'Age of Giants', when huge sauropod dinosaurs ruled the Earth. Pangaea started to break up and rain began to fall on Earth's deserts. More plants grew, providing food for all sorts of new plant-eating dinosaurs. This period lasted from around 200 to 145 million years ago.

Pangaea breaks up



Giant plant eaters

Sauropods were a group of giant plant-eating dinosaurs, including Diplodocus and Brachiosaurus. Diplodocus had a really long neck and an even longer tail. Its neck was so massive that it couldn't lift it much above shoulder height.

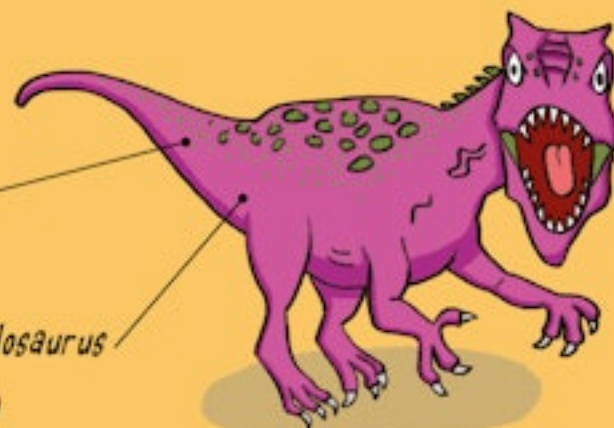


Big appetite

Brachiosaurus was enormous! It weighed in at around 20 to 40 tonnes and was a whopping 26 metres in length. It used its extended neck like a giraffe to reach for the highest leaves, and had to eat around 120 kilograms of leaves a day just to survive!

Killing machine

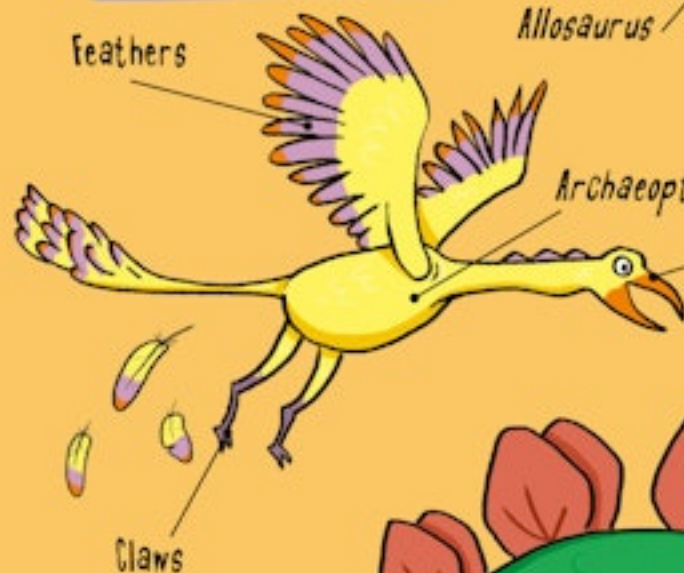
Allosaurus was a deadly killing machine. At up to 12 metres in length, it was far smaller than the massive sauropods – but it would use its sharp teeth and claws to bring a sauropod down!



Feathers

Allosaurus

Archaeopteryx



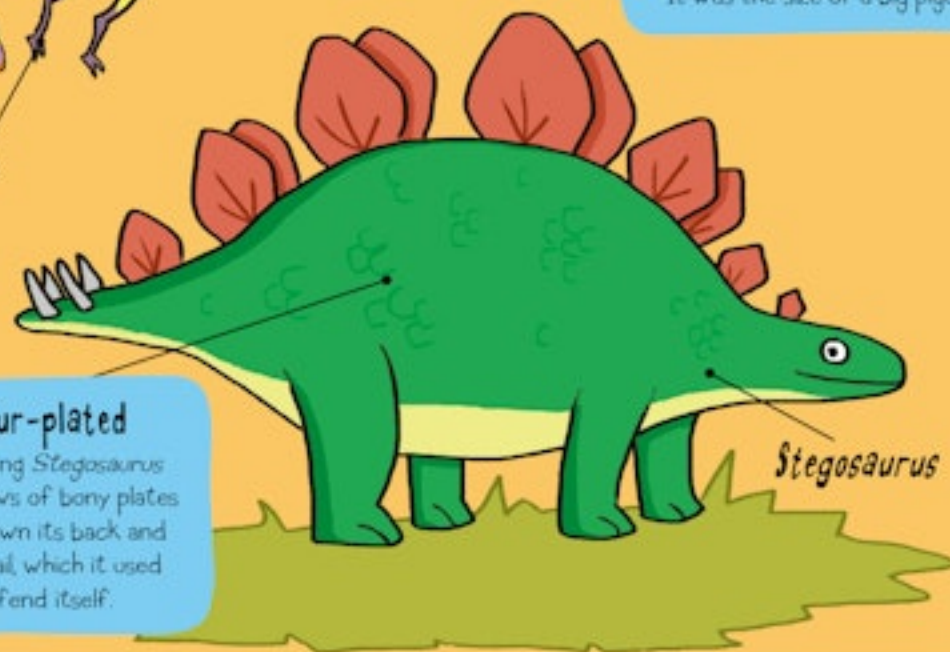
Is it a bird?

Archaeopteryx shows the link between dinosaurs and prehistoric birds. It had feathers and a beak, but claws and teeth like a dinosaur. It was the size of a big pigeon.

Claws

Armour-plated

Plant-eating Stegosaurus had two rows of bony plates running down its back and a spiked tail, which it used to defend itself.



CRETACEOUS TIMES

In the Cretaceous period the world as we know it began to take shape. Flowering plants started to appear and continents drifted apart. As land moved, dinosaurs were cut off from other dinosaurs of their kind and began to change. This meant there were more kinds of dinosaur than ever before.



Different continents form

All shapes and sizes

Cretaceous dinosaurs came in all shapes and sizes, from the relatively small *Velociraptor* to the mighty *Giganotosaurus*.

North America

1. *Struthiomimus*
2. *Edmontosaurus*
3. *Utahraptor*
4. *Tyrannosaurus rex*
5. *Triceratops*

Europe

6. *Iguanodon*
7. *Telmatosaurus*

Asia

8. *Oviraptor*
9. *Velociraptor*
10. *Therizinosaurus*
11. *Tarchia*

South America

12. *Giganotosaurus*
13. *Irritator*

Africa

14. *Carcharodontosaurus*
15. *Spinosaurus*

India

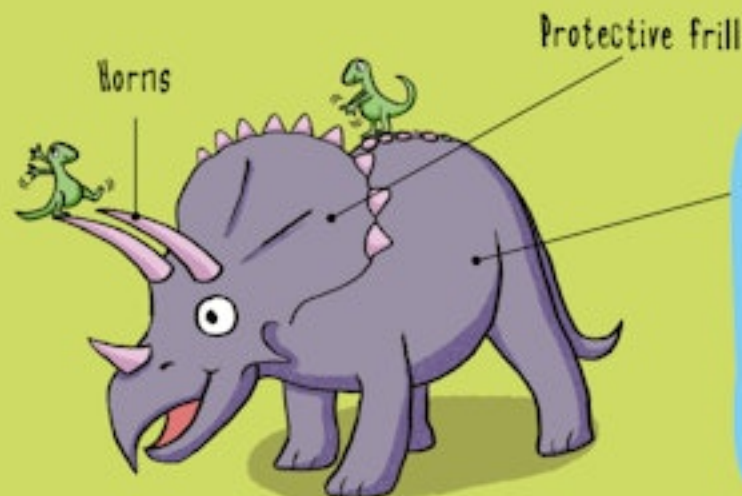
16. *Isisaurus*

Antarctica

17. *Trinisaura*

Australia

18. *Savannasaurus*



Triceratops

Triceratops was an enormous beast. It had three huge horns on its face and a bony frill around its head. It was as heavy as a fully-grown African elephant, and very bulky. Despite its fearsome looks, it was a plant eater.

Tyrant king

Tyrannosaurus rex was one of the most ferocious animals to ever walk the planet. It had razor sharp claws and teeth like daggers. An adult *T-rex* was so heavy that it probably couldn't run far, so it may have lain in wait to ambush its victims.



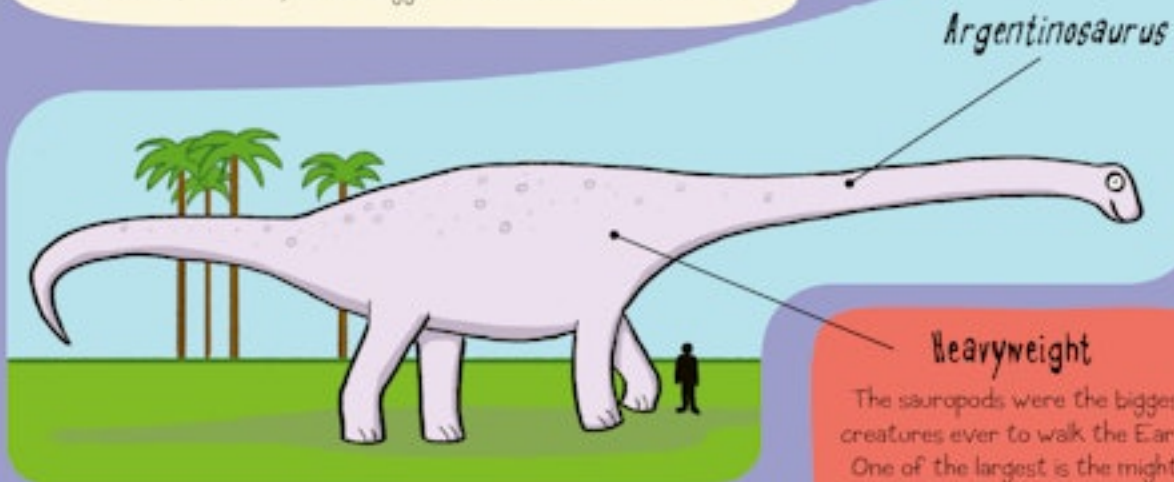
Clever clogs

Although it was only small, *Troodon* had a surprisingly large brain. This meant it was much cleverer than other dinosaurs. It also had big eyes, which suggests it hunted at night.



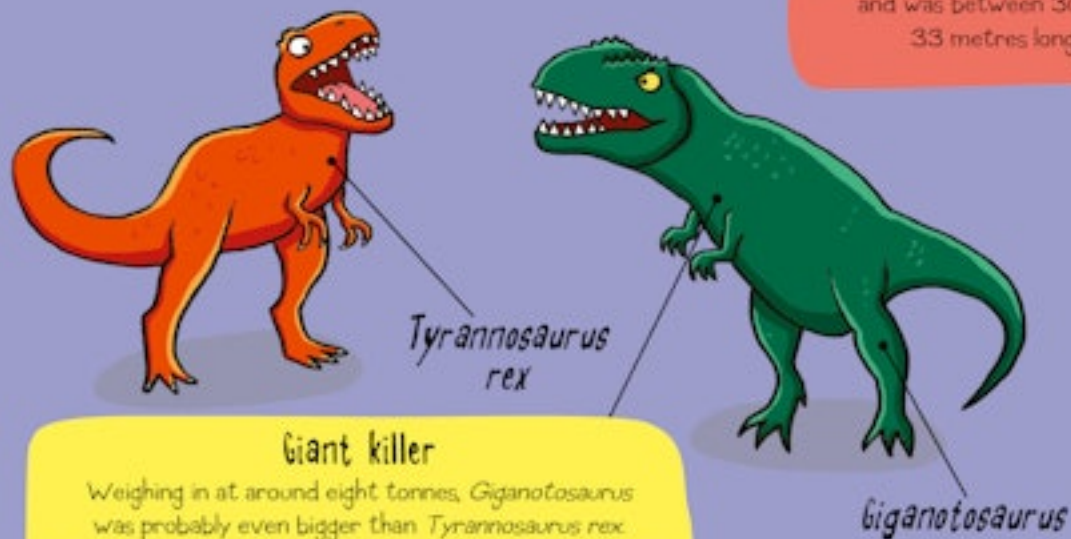
GREAT AND SMALL

Although we think of dinosaurs as huge, scary beasts, they weren't all giant predators. Some, like *T-rex*, were big and fierce, but others were small, and many of the biggest dinosaurs were herbivores.



Heavyweight

The sauropods were the biggest creatures ever to walk the Earth. One of the largest is the mighty *Argentinosaurus*. It weighed between 60 and 100 tonnes and was between 30 and 33 metres long.

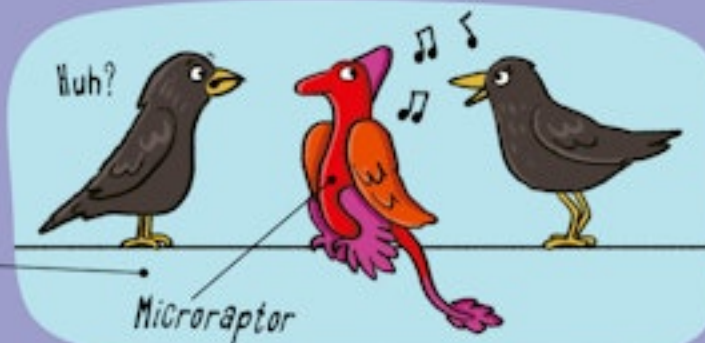


Giant killer

Weighing in at around eight tonnes, *Giganotosaurus* was probably even bigger than *Tyrannosaurus rex*. But even *Giganotosaurus* wasn't the biggest meat eater.

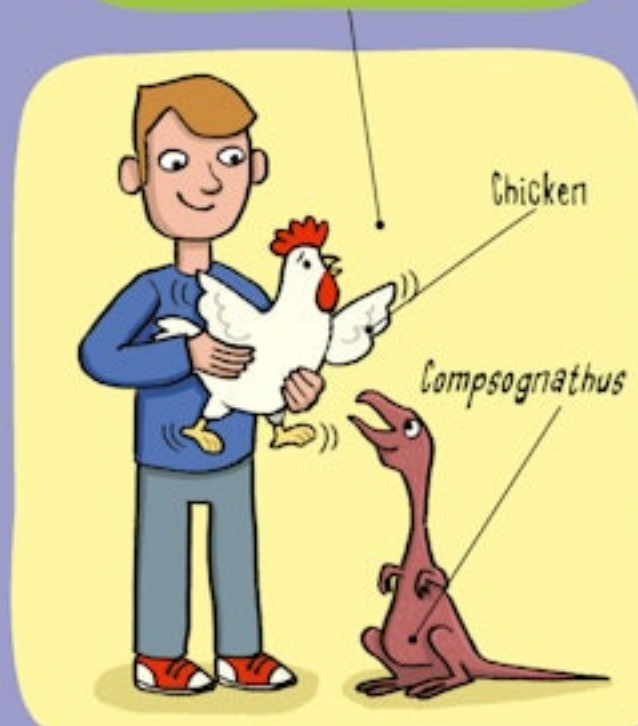
Pint-size predator

Some of the smallest dinosaur skeletons ever found belong to *Microaptor*. It was only about the size of a crow and had four wings!



Tiny hunter

Tiny *Compsognathus* was one of the smallest dinosaurs. It wasn't much bigger than a chicken, but it was fast and deadly.



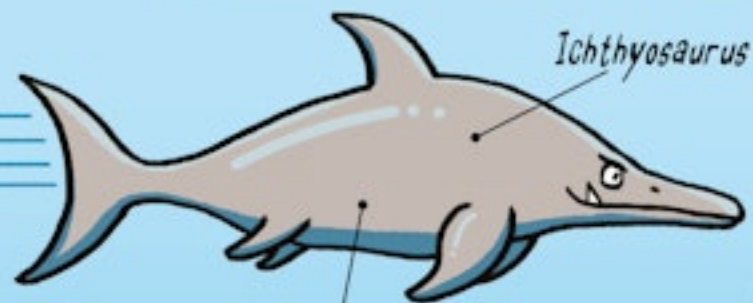
Big head

Some dinosaurs had enormous heads. *Pentaceratops*'s horned skull is a record breaker! This massive head, along with its horns, was used as a battering ram.



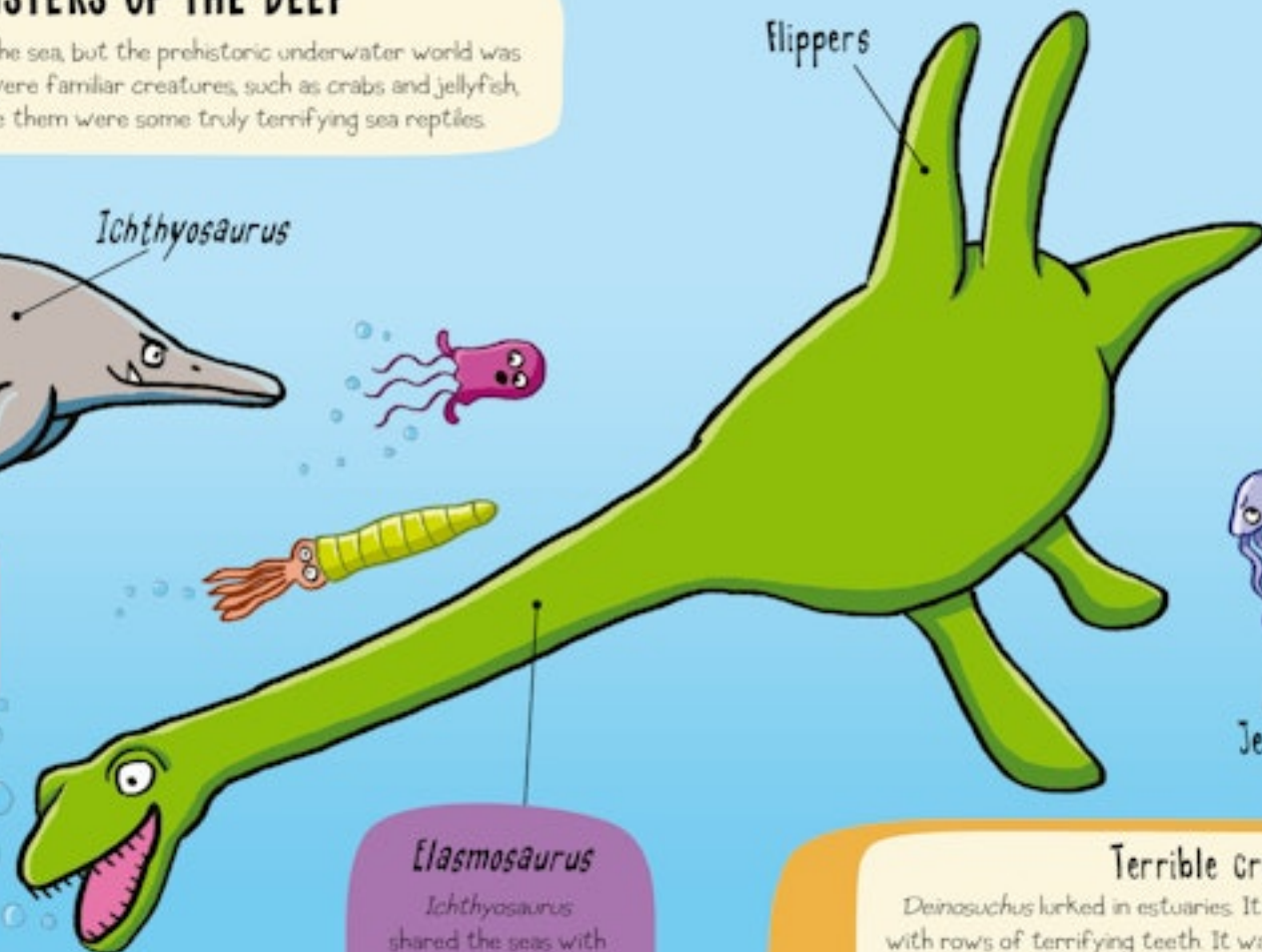
MONSTERS OF THE DEEP

Dinosaurs did not live in the sea, but the prehistoric underwater world was teeming with life. There were familiar creatures, such as crabs and jellyfish, but swimming alongside them were some truly terrifying sea reptiles.



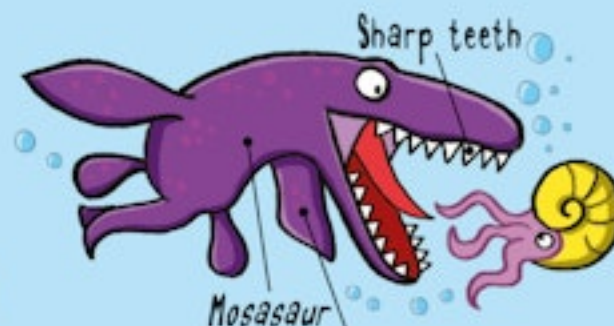
Long and sleek

Ichthyosaurus was a torpedo-shaped sea reptile that looked like a modern dolphin. It was an amazing swimmer and a skilled hunter.



Elasmosaurus

Ichthyosaurus shared the seas with a marine reptile called *Elasmosaurus*. It had paddle-like flippers and a long neck, and was a slow, graceful swimmer.



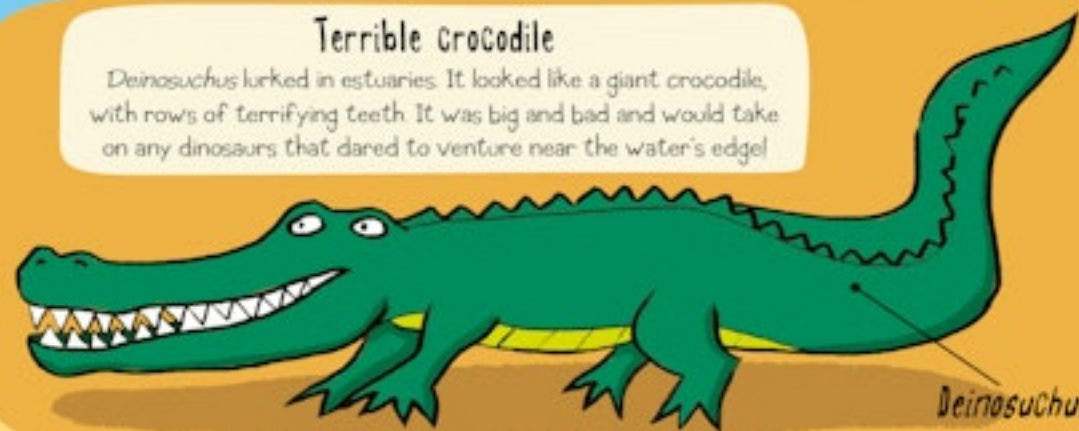
Giant killer

Mosasaurus were a group of fearsome sea reptiles. They had two sets of seriously sharp teeth and a mouth that was wide enough to swallow prey whole. The largest was 15 metres in length – that's as long as a double-decker bus!



Terrible Crocodile

Deinosuchus lurked in estuaries. It looked like a giant crocodile, with rows of terrifying teeth. It was big and bad and would take on any dinosaurs that dared to venture near the water's edge!



IN THE SKIES

Up above the prehistoric landscape soared the strangest creatures of all – the pterosaurs. These weren't dinosaurs. They were flying reptiles, with wings made from leathery skin.

Big Crest

Pteranodon was a huge flying reptile, with a spectacular wingspan of up to 10 metres. It lived near the coast and fed on fish and other sea creatures. Its long head crest might have helped to balance out its very long beak.

Glider

Pteranodon's body was small compared to its wings. It probably soared like a glider, rather than flapping its wings.

Tasty fish

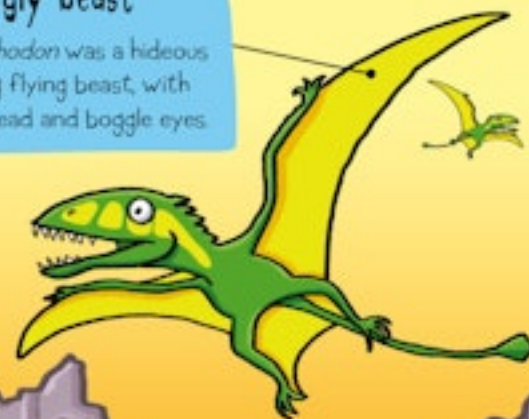


Prehistoric bird

Ichthyornis was a prehistoric seabird, about the size of a pigeon. It looked like a modern gull, but had a set of sharp teeth. It nested on the coast and hunted fish.

Ugly beast

Dimorphodon was a hideous looking flying beast, with a huge head and boggle eyes.



Wide wingspan

Leathery wings

Long neck

Quetzalcoatlus

flying giant

Quetzalcoatlus was one of the largest known flying creatures of all time. It had an extra-long fourth finger to support its huge wingspan.

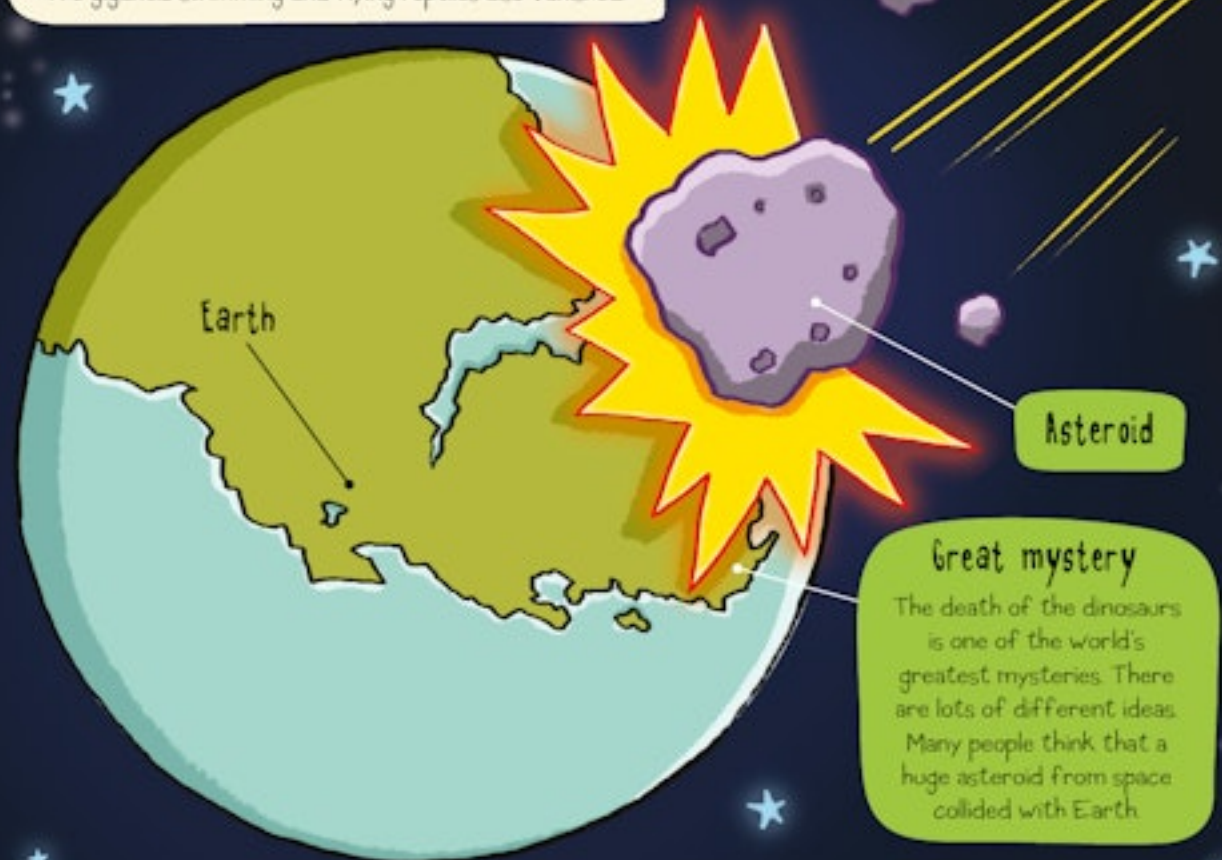
Big head
Crest

Large beak



DEATH OF THE DINOSAURS

Dinosaurs disappeared from our planet about 65 million years ago. It wasn't just the dinosaurs that disappeared. The gigantic swimming and flying reptiles also vanished.



Asteroid

Great mystery

The death of the dinosaurs is one of the world's greatest mysteries. There are lots of different ideas. Many people think that a huge asteroid from space collided with Earth.

Dinosaur detectives

Luckily, we know a lot about dinosaurs from the fossilized bones, footprints, nests, eggs and droppings they left behind.

Dinosaur detective (palaeontologist)



Volcanic eruptions

Other scientists believe that volcanic eruptions might have released toxic gases that killed lots of plants and animals.



The survivors

Not all living things died. Smaller reptiles, birds and some plants survived. Even crocodiles managed to live through whatever happened and they are still around today.

SURVIVORS

Crocodiles



Birds



Lizards



Prehistoric fern

How fossils form

1 Fossils are formed over many thousands of years. The process begins when a creature dies.

2 The creature's flesh and skin gradually starts to rot away, but the bones are left behind. The remains are covered by sand or mud.

3 Many years pass and the sand or mud eventually turns to rock. The imprint of the creature is left in the rock. This is a fossil.

