



YOU ARE ABOUT TO ENTER THE FASCINATING WORLD OF THE DINOSAUR

...a world which existed over 200 million years ago ... a world which was constantly changing with new continents and new seas forming ... a world which was dominated for some 140 million years by the most amazing creatures ever to walk on the face of this planet - the world of the dinosaur.

Although it is hard to imagine something that existed so long ago, scientists have discovered a wealth of information about dinosaurs which gives us a fascinating insight into how they looked and the way they lived. Your 'Attack of the Dinosaurs' Sticker Album has recreated this foregone age in a dramatic and educational presentation. Filled with sensational pictures and amazing facts, this 'Attack of the Dinosaurs' Album is a must for every schoolchild, as well as an exciting and intriguing collectable for dinosaur buffs of any age.

You will be able to regularly add to your album with a fabulous collection of Stickers, and you'll discover all sorts of weird and wonderful images and details as you go. There are 21 different Sticker Cards to collect to completely fill your 'Attack of the Dinosaurs' Sticker Album. Each Sticker Card contains not only your Album Stickers but also has fun Bonus Stickers that you can use on your bags, schoolbooks or wherever you like.

So start collecting now! The 'Attack of the Dinosaurs' Sticker Collection and Album is available for a limited time only. Get yours now before they become extinct, just like those reptilian rulers of long ago.



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/_	TRIASSIC	JURASSIC		CRETACEOUS	
	230-195 M.Y.A.	195-140 M.Y.A.		140-65 M.Y.A.	
Early rept 280 m.y.	200 m		First bird 140 m.y.a.	Dinosaurs become extinct, 65 m.y.a.	First human beings 2 m.y.
7		(Note: M.Y.A. and m.y.:	a. denotes 'million	years ago'.)	bolligg a my

THE AGE OF THE DINOSAURS

Farly mammals

Formation of the Earth

The dinosaurs all lived during one period of time known as the Mesozoic (Mez-owe-zoh-ik) Era which means 'middle life'. It lasted for a very long time, from about 230 million years ago to 65 million years ago. This era was divided up into three different periods - Triassic, Jurassic and Cretaceous.

The Triassic Period (approximately 230-195 million years ago)

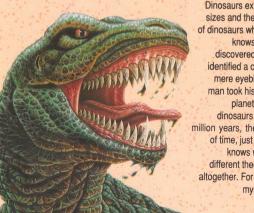
At this time all the world continents were joined together into one supercontinent called Pangea. This was divided into two land masses, Laurasia in the north and Gondwanaland in the south. The climate was semi-tropical, with many deserts and alternating wet and dry seasons.

The Jurassic Period (approximately 195-140 million years ago)

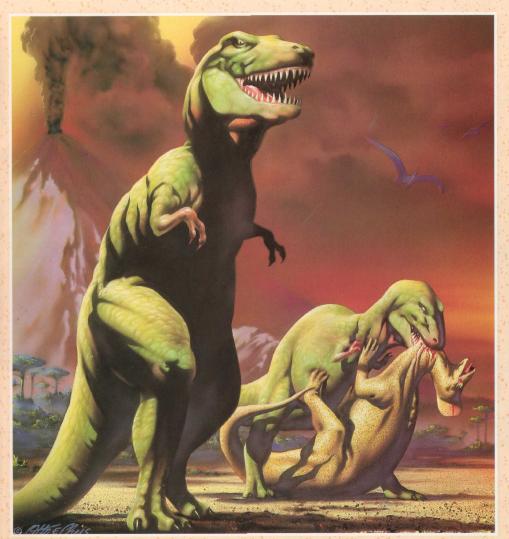
Temperatures became warmer and much wetter with humid swampy conditions. More plants began to appear and Pangea, the Supercontinent began to split up. This was the great age of the dinosaur.

The Cretaceous Period (approximately 140-65 million years ago)

Temperatures gradually began to cool towards the end of the period. Plants flourished and the first flowers appeared. Seas were warmer and the continents were more or less as we know them today, although they were still relatively flat.

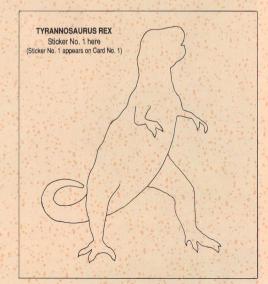


Dinosaurs existed in all sorts of shapes and sizes and there are over 800 different kinds. of dinosaurs which have been identified. Who knows how many more are yet to be discovered as the first dinosaur was only identified a couple of hundred years ago, a mere eyeblink in earth's history! Primitive man took his first faltering footsteps on our planet about 4 million years ago, yet dinosaurs reigned supreme for over 140 million years, then in a relatively short period of time, just ceased to exist. No one really knows why, although there are lots of different theories. But that is another story altogether. For now, let's enter that long ago. mysterious world of those mighty creatures - The Dinosaurs



YRANNOSAURUS REX (Tie-ran-owe-saw-rus)

The largest and most fearsome of all the meat-eating dinosaurs was Tyrannosaurus Rex. Regarded as "The King" of the dinosaur world, he was 15 metres long and over 6 metres tall, about the same height as a telegraph polel His feet alone measured 75cm in both directions, and he weighed in at a hefty 8 tonnes. His teeth were about the length of a man's hand and a man's head would have fitted into his eye-socket! The name Tyrannosaurus means "tyrant lizard". Yet he had one very unusual feature - his front legs were almost ridiculously short compared to the rest of his massive body. They were not even long enough to scratch his chin! Scientists believe they may have been used, like levers, to boost the creature up off the ground after he had been lying down.



TYRANNOSAURUS REX - KING OF THE DINOSAURS



APATOSAURUS (Ah-pat-owe-saw-rus)

This huge plant-eater was about 21 metres long and weighed up to 30 tonnes. It had a long neck which was used to reach tree top leaves and a long tail that ended in a thin whiplash. The name Apatosaurus means 'deceptive lizard' and it used to be known as Brontosaurus until 1975. It had a small head in relation to the rest of its body and all of its teeth were grouped together across the front of its mouth. It wasn't very fast moving or quick witted as it only had a brain about the size of a fist. They probably stayed together in herds for protection against fierce meat-eaters.

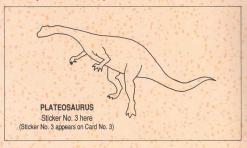


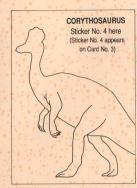
STYRACOSAURUS (Sty-rack-oh-saw-rus)

A collar of spikes, a single horn on its nose and twisting horns over each eye, made this dinosaur look fierce, even though it was a plant-eater. Styracosaurus means 'spiked lizard'.

PLATEOSAURUS (Plat-ee-owe-saw-rus)

This large plant-eater could walk on all fours just as well as on its two hind legs. The name means 'flat lizard' and it must have been fairly common as many skeletons have been found.





CORYTHOSAURUS

(Cory-thow-saw-rus)

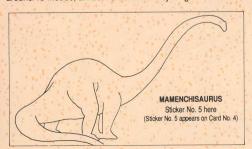
This creature ate tough plants such as pine needles and twigs. He had hundreds of teeth arranged in long rows on either side of his mouth and a hard beak. Its name means 'helmet reptile' due to the bony crest on top of its head. It grew to around 10 metres, about the length of 3 cars.

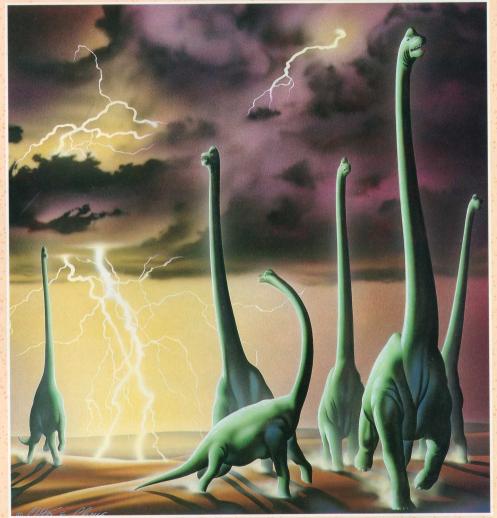
BRACHIOSAURUS (Brack-ee-owe-saw-rus)

This was one of the tallest and heaviest land animals ever known. It was about the same length as a basketball court, taller than a 3 storey building and weighed as much as 81 tonnes (about 16 elephants)! A man could not have reached the joint of its leg! This plant-eater had an extremely long neck, but unlike other dinosaurs its front legs were longer than its back legs. In fact Brachiosaurus means 'arm reptile'. Although it only had a tiny brain, it managed to survive for 25 million years. Due to its huge size, and the fact that it only ate plants, it must have spent all day eating just to stay alive.

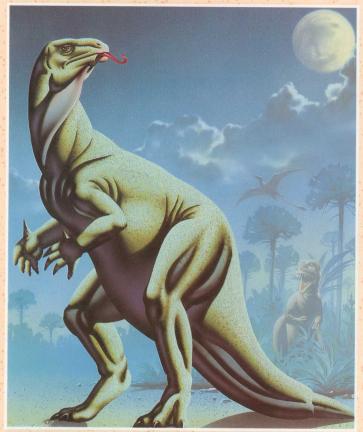
MAMENCHISAURUS (Mam-en-key-saw-rus)

This dinosaur had the longest neck of any animal. It measured around 10 metres, almost half its total body length.



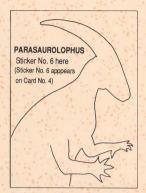


BRACHIOSAURUS



IGUANODON (Ig-you-ah-no-don)

This large plant-eater (around 10 metres long) lived over 120 million years ago and was one of the first dinosaurs ever discovered. Many skeletons have been found across Europe, Africa and Asia. He had well developed hands for holding food and a large spike on each thumb, which was probably used as a weapon. His extra long tongue would have been useful for pulling plants into his mouth which held several rows of teeth along each jaw. The Iguanodon had a very strong tail and moved about on its hind legs. The name means 'iguana tooth', even though it is no relation to the iguana.



PARASAUROLOPHUS

(Par-ah-saw-rol-owe-fus)

This was one of the largest duckbilled dinosaurs. On the top of his head he had a long bony crest that stuck out over a metre behind his skull. This crest was hollow and contained air tubes that ran from his nostrils to his lungs. It is not really known what these air tubes were used for but there are a few different theories. They may have been used to make bellowing sounds or may have even helped the animal to stay under water. Also these air passages would have given the Parasaurolophus a very good sense of smell.

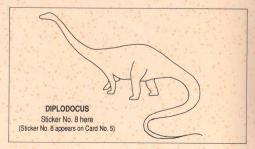


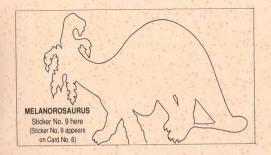
LAMBEOSAURUS (Lam-be-owe-saw-rus)

This duck-billed dinosaur was nearly 15 metres long and had a large crest on top of its head with a sharp spike sticking out from the back of the crest. In fact some fossils have been found where the crests were actually bigger than the skull. There was a hollow space inside the crest which was connected to the dinosaur's nostrils.

DIPLODOCUS (Dip-lod-owe-cus)

This plant-eater was the longest dinosaur that ever existed, but most of its length was made up of its thin neck and tail. It measured about 27 metres in length, about the same size as 8 cars parked end to end. Although it was large, it had quite a thin body, and its brain was only about the size of a hen's egg. The name means 'double beam'.





MELANOROSAURUS

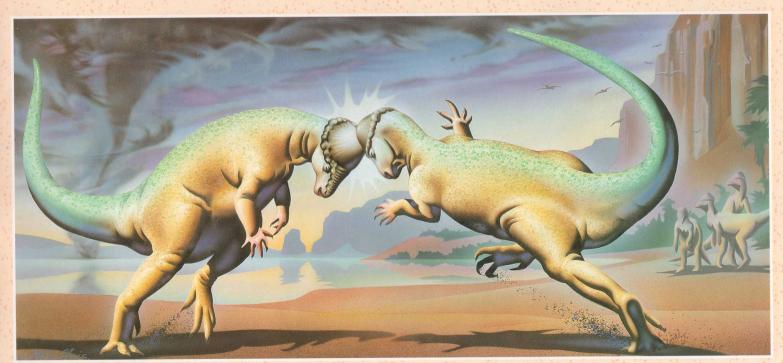
(Mel-an-ore-row-saw-rus)

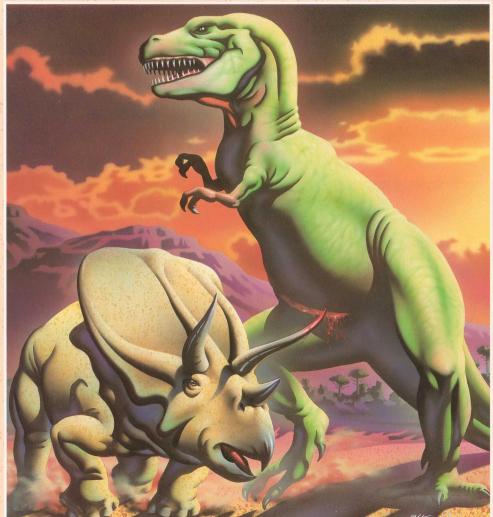
This was one of the first giant dinosaurs. It was about twice as large and more heavily built than its relative, Plateosaurus. If seven men lay down end to end, you would have an idea of the length of this giant plant-eater from nose to tail. Melanorosaurus means 'Black Mountain lizard' and lived in South Africa 200 million years ago.

PACHYCEPHALOSAURUS

(Pack-ee-sef-al-owe-saw-rus)

The name of this dinosaur means 'thick head' and this is just what he had. The bone at the top of the skull was 25cm thick, which is about 20 times thicker than a human's skull. It is believed that they may have used this thick skull for head-butting purposes to determine the dominant member of a group. Two dinosaurs would run towards each other with their heads down and when they hit their thick skulls would have acted like crash helmets. This 8-metre-long plant-eater was one of the first 'head bangers'!





TOROSAURUS FIGHTING OFF A TYRANNOSAURUS

DROMICEIOMIMUS

(Drom-iss-ee-owe-my-mus)

This was possibly the fastest dinosaur that ever lived. He could run as fast as a horse and he was about 3 to 4 metres long from head to tail. Similar to an ostrich in shape, this dinosaur also had huge eyes which would have been useful for hunting at dawn and dusk.



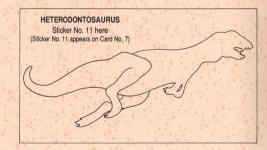
TOROSAURUS (Tor-row-saw-rus)

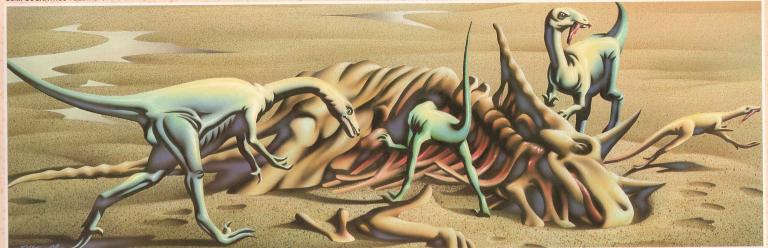
This huge horned dinosaur had the largest skull of any known land animal. At 2.5 metres long it was about the same size as a car. It also had the largest frill of any dinosaur and this was part of the skull bone. Although fiercesome in appearance, Torosaurus was a plant-eater, like all horned dinosaurs. His horns were used to defend against attacking meat-eaters.

HETERODONTOSAURUS

(Heta-row-don-tow-saw-rus)

Most dinosaurs had only one type of tooth but this small reptile actually had three different sets. Sharp, nipping teeth at the front, a pair of tusks halfway along each jaw and flat, grinding teeth at the back. Not surprisingly, his name means 'different teeth'.

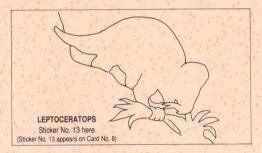






COMPSOGNATHUS (Comp-sog-nay-thus)

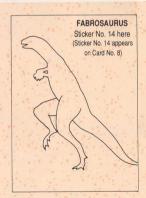
This was the smallest dinosaur known. It was only about the size of a chicken. It hunted small animals and may have been a scavenger. Its name means 'elegant jaw'.



LEPTOCERATOPS

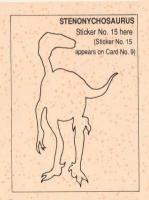
(Lep-tow-sir-ah-tops)

Even though this plant-eater was a member of the horned family of dinosaurs, it didn't have any horns, just a small frill around its neck. Most horned dinosaurs were large and walked on all fours but Leptoceratops was smaller than a man and could run quickly on its hind legs.



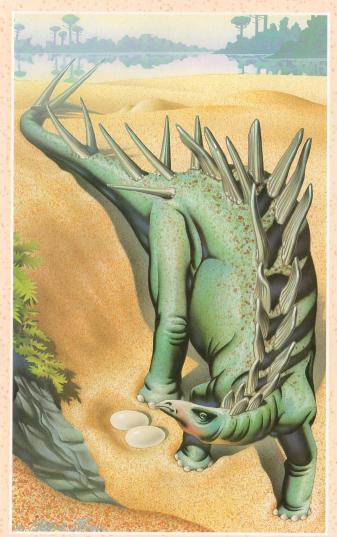
FABROSAURUS (Fab-row-saw-rus)

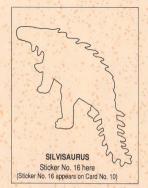
This small plant-eater was only about a metre tall. It was one of the first bird hipped dinosaurs and lived in South Africa about 210 million years ago.



STENONYCHOSAURUS (Sten-on-ick-owe-saw-rus)

In proportion to its body weight this small meat-eater had a larger brain than any other dinosaur. Its name means 'narrow clawed' lizard.





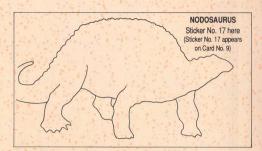
SILVISAURUS (Sill-vee-saw-rus)

This armoured dinosaur's back was covered in flat plates of bone which were joined together to form a solid shield. With sharp spikes that stuck out sideways from its shoulders and at the end of its tail, it was well protected against predators. The Silvisaurus was very large, measuring about 4 metres in length.

KENTROSAURUS

(Kent-row-saw-rus)

The Kentrosaurus had spikes and plates along its back for protection against large meat-eating dinosaurs. These plates were covered in skin and acted as a built-in heating and cooling system. The dinosaur would turn its plates to face the sun and get warm or stand sideways in a breeze to cool the blood in the skin over the plates. The Kentrosaurus was about 2.5 metres long and was thought to be a very slow moving creature.

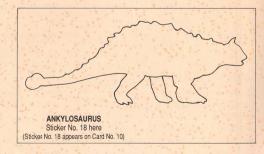


NODOSAURUS (Nod-owe-saw-rus)

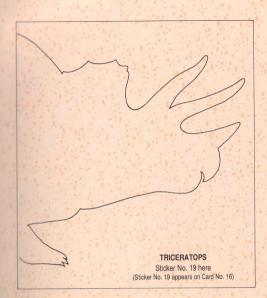
This armoured dinosaur lived in North America about 95 million years ago. Unlike most other armoured dinosaurs, Nodosaurus didn't have spikes or a tail club.

ANKYLOSAURUS (An-kee-low-saw-rus)

This giant plant-eater was as large as a tank and covered in thick, bony armour. Even his eyelids were covered with plated bone and he had a huge club-shaped bone at the end of his tail which was about the size of two supermarket bags full of groceries. He used this clubbed tail to fight off attacking meateaters and he may have been one of the slowest moving dinosaurs ever. His name means 'fused lizard' or 'stiffened lizard'.

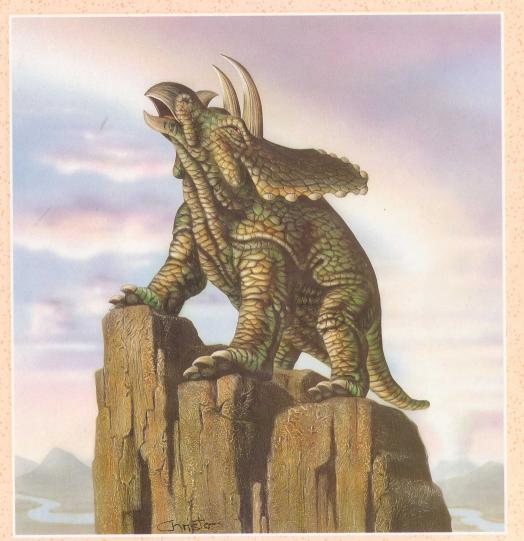


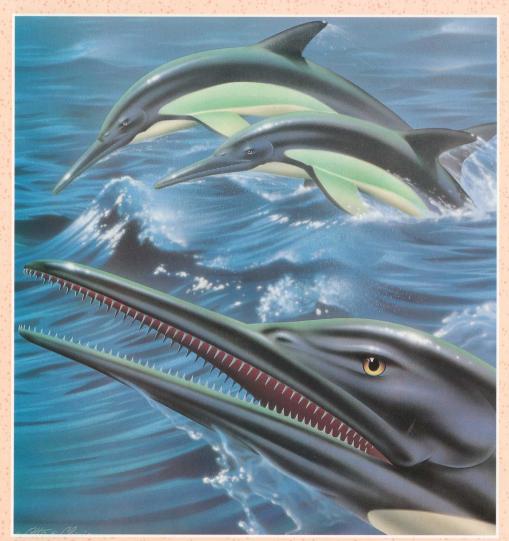
10. KENTROSAURUS

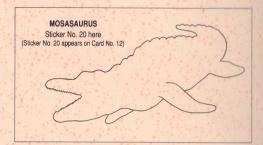


TRICERATOPS (Tri-sir-ah-tops)

This enormous dinosaur was 9 metres long and weighed up to 8 tonnes, about the same size as a small truck. This creature's huge skull was about the same weight as a full sized bull and accounted for nearly a quarter of its total body length. The name Triceratops means 'face with three horns'. It is thought that they lived and ran in huge herds, just like the buffalo of North America. They must have been an awesome sight as they thundered across the land, creating gigantic dust clouds and literally shaking the earth as they surged forward in their hundreds.

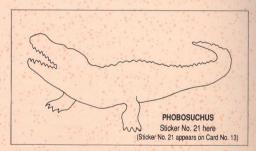






MOSASURUS (Mows-ah-saw-rus)

Many of these creatures grew to be as large as whales. They had four paddle-shaped legs and a long flat tail which swished from side to side to enable them to move quickly under water.



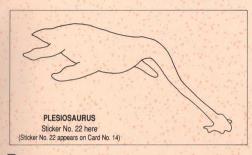
PHOBOSUCHUS (Fow-bow-such-us)

This fearsome predator grew to four times the size of today's crocodiles. Its huge jaws were as long as a standard station wagon.

ICHTHYOSAURUS (Ick-thee-owe-saw-rus)

These dolphin-like creatures were superbly adapted for life in the sea. Their powerful tails enabled them to swim quickly whilst steering with their flippers. The name lchthyosaurus means 'fish lizard'. They differed from most other reptiles as they didn't lay eggs. The mother kept the eggs in her body until they were ready to hatch and then gave birth to live young.

12. ICHTHYOSAURUS



PLESIOSAURUS (Plea-see-owe-saw-rus)

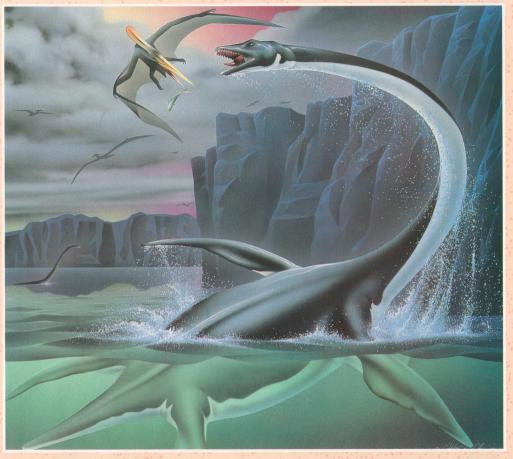
There were many different kinds of Plesiosaurus but they all looked quite similar. They had a broad body and flippers, a short tail and a very long neck. It is thought that they swam on the surface and darted their heads under water to catch fish. Although they were quite agile, they weren't very fast swimmers.

METRIORHYNCHUS

(Met-ree-ore-ring-cus)

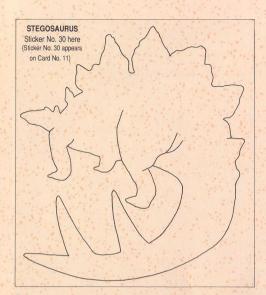
With a smooth, streamlined body, strong, muscular tail and four paddle-like fins, this crocodile-like creature was well adapted for swimming. Metriorhynchus grew to about 2.5 metres long and lived about 160 million years ago.





ELASMOSAURUS (Ell-as-mow-saw-rus)

This large creature lived in the shallow seas that covered part of North America 80 million years ago. It was not a true dinosaur (they all lived on land) but belonged to another group of reptiles. It had a small head with long sharp teeth and a very long neck that could move quickly in almost any direction. It ate fish and it is thought that it may also have caught low-flying Pterodactyls.

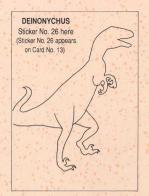


STEGOSAURUS (Steg-owe-saw-rus)

The largest of the plated dinosaurs, Stegosaurus grew to around 7 or 8 metres in length, about the same size and weight as a limousine, and was twice as tall as a man. Two rows of bony plates ran along its back and were probably used to control the animal's body heat. Its rear legs were twice as long as its front legs and it had spikes on the end of its tail which would have been useful to fight off attacking meat-eaters. Stegosaurus was a plant-eater and its name means 'roofed lizard'.

MEGALOSAURUS (Meg-al-owe-saw-rus)

This powerful meat-eater's name means 'big' or 'large lizard'. Standing over 6 metres tall, he had a bulky body with huge jaws and teeth, strong hind legs and a muscular tail. Back in 1824, it was the first dinosaur to be named, which explains why it was called 'large lizard' when in fact it is smaller than a lot of other dinosaurs.



DEINONYCHUS

(Day-non-ee-kus)

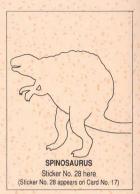
This 3 metre long dinosaur was one of the most dangerous meateaters of its time. He had two long, sharp, curved claws on each foot, large teeth and strong arms with an unusually advanced grip. His tail was extremely rigid and was used for stability, just like a balancing bar. An efficient hunter, even of larger dinosaurs, his name means 'terrible claw'.



CERATOSAURUS

(Sir-at-owe-saw-rus)

Ceratosaurus was the only meateater to have a horn on its nose. It is not known what purpose this horn served as it was too small for hunting or attacking. This dinosaur was about 6 metres long and a quick runner.

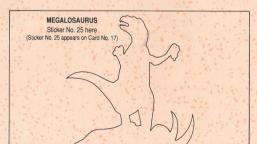


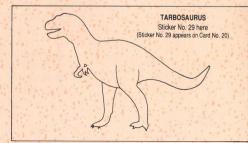
SPINOSAURUS (Spv-no-saw-rus)

A long row of spines, joined together with skin, formed a sail which ran down this dinosaur's back. This sail was used for heating and cooling but was quite fragile. He was 12 metres long and was probably a scavenger.

TARBOSAURUS (Tar-bow-saw-rus)

At 14 metres long, this meat-eater was very large and very powerful. However, compared to the rest of its body, he had tiny forearms. They may have been used to help push himself up off the ground after he had been lying down.







YANGCHUANOSAURUS

(Yan-chew-an-owe-saw-rus)

This powerful hunter was a close relative of the Allosaurus and lived in China about 145 million years ago. He was probably a very fast runner with strong hind legs. He was also quite large, about three times as long as a car.

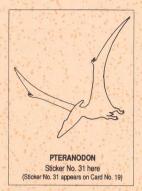
ALLOSAURUS (Al-owe-saw-rus)

The Allosaurus was an enormous meat-eater that lived during the Jurassic Period. This 12 metre long giant was a ferocious hunter and would attack other large dinosaurs, often hunting in packs. He had short front legs with sharp claws and long, sharp, serrated teeth like steak knives. He had a huge mouth that could open wide enough to swallow small animals whole. Allosaurus fossils have been found in North America, Africa and Australia.



ALLOSAURUS - FIGHTING OVER THE REMAINS





PTERANODON (Tair-ah-no-don)

This flying reptile was quite large with a wing span of over 8 metres. The long crest at the back of its head helped it to balance. Although it didn't have any teeth, its jaws were covered with a horny beak.

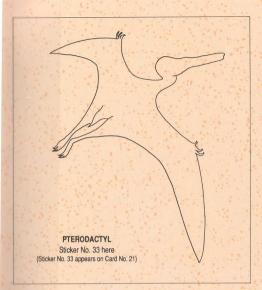
QUETZALCOATLUS

(Kwet-zal- coat-lus)

This was the largest flying dinosaur ever known. It had a wingspan of over 12 metres, about the same size as a small aeroplane. It had a long neck and a rather small head in relation to the rest of its body.



16. PTERANODON

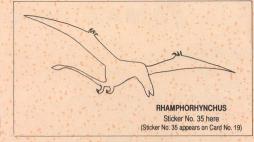


PTERODACTYL (Tair-owe-dac-til)

There were many different kinds of Pterodactyls and most were about the same size as today's birds. They were good fliers and could cover long distances. Unlike the earlier Rhamphorhynchus, their tails were short. Whilst their bodies were covered with fur, their wings were not. The name Pterodactyl means 'finger wing'.

RHAMPHORHYNCHUS (Ram-for-ring-cus)

These were lightly built reptiles with long, bony tails which had a diamond shaped flap of skin on the end. This could have been used as a rudder to help the animal fly or glide. The name Rhamphorhynchus means 'narrow beak'.





ARCHAEOPTERYX (Ar-kee-op-terr-iks)

Archaeopteryx is thought of as the 'first bird'. It was about the size of a crow. It was not a true dinosaur but a cross between a reptile and a bird. It had feathered wings with hand-like claws on the ends, teeth like a reptile, a long bony tail and a primitive beak. The male bird may have had brighter coloured feathers than the female, just like a peacock. The name means 'ancient wing' or 'ancient feather'.



RHAMPHORHYNCHUS

MAZING DINO FACTS

DID YOU KNOW...

- The common cockroach existed over 200 million years ago in the Triassic Period.
- The first known animal fossils were found in Australia at a place called Ediacara. They were the remains of a jellyfish that was as big as the wheel of a truck. This jellyfish had become stranded on a beach 670 million years ago.
- After about 300 million years of living on land, plants began to produce flowers. The first known flower is of the Magnolia tree which flowered at the time of the dinosaur, just as it does today.
- There is a town in Colorado in the U.S.A called Dinosaur. Even the streets are named after dinosaurs, like Tyrannosaurus Terrace and Brontosaurus Boulevard!
- There is a Dinosaur National Monument in Utah, U.S.A. where you can see a 58 metre long wall with more than 1.000 dinosaur bones embedded in it.
- All dinosaurs, even the giant Brachiosaurus, were hatched from eggs. The largest dinosaur egg ever found was discovered in France. It was the size of a rugby ball and was laid by a giant sauropod, called Hypselosaurus.



WHY DID THE DINOSAURS BECOME EXTINCT?

About 65 million years ago, dinosaurs simply disappeared, becoming extinct over a relatively short period of time. Mammals, birds and even other reptiles survived - why not the dinosaur? Nobody really knows the answer but there have been many theories put forward.

Some of these theories are:

- Climatic changes occurred affecting the plants that some of the dinosaurs ate. If these dinosaurs died, the meat-eaters would have had their food source greatly reduced as well.
- A deadly dinosaur disease swept the earth, killing off the animals in such large numbers that breeding was impossible.
- Egg shells became too thin and broke before the dinosaurs could hatch, or maybe smaller animals ate all the dinosaur eggs.
- The carnivorous dinosaurs (meat-eaters) ate all the plant-eating dinosaurs and so had no food left.
- An asteroid or large meteorite crashed to earth, throwing up so much dust and debris that the light and heat from the sun was blocked out. This would have caused temperatures to drop dramatically and some forms of plant life to die.
- There is even a suggestion that the dinosaurs simply grew tired of life on earth and died of boredom! Maybe you have your own ideas but, for now, it still remains a mystery.



IS THIS WHAT HAPPENED TO THE DINOSAUR?

DINOSAUR DIRECTORY

Ammonites

Extinct shellfish. Relatives of today's octopus and squid.

Amphibians

Animals that are able to live both in the water and on the land.

Biped

Animals that stand on two hind legs.

Carnivore

A meat-eating animal.

Cycads

Palm-like plants that existed during the age of the dinosaurs. (Mesozoic Era).

Dinosaur

An extinct group of reptiles that lived between 225 and 65 million years ago. The name comes from the Greek term meaning 'terrible lizard'.

Ectothermic

Means cold-blooded. An animal that depends on external sources for body heat.

Endothermic

Means warm-blooded. An animal that produced body heat by internal chemical reactions.

Evolution

The gradual change and development of plants and animals over a very long period of time.

Extinction

The death of a species of plant or animal. Dinosaurs all became extinct about 65 million years ago at the end of the Cretaceous period.

Fauna

Animals of a particular area or period of time.

Flora

Plants of a particular area or period of time.

Fossil

The preserved remains of a plant or animal that lived millions of years ago. They are usually found in the form of stone.

Gastroliths

Stones that were swallowed by some dinosaurs so that they could grind food in their stomachs.

Gondwanaland

Millions of years ago all the earth's continents were joined together into a supercontinent called Pangea.

Gondwanaland was the southern part of this supercontinent and consisted of present day Australia, South America. Africa, India and Antarctica.

Herbivore

Plant-eating animal.

Insectivore

Insect-eating animal.

Laurasia

The northern part of the supercontinent of Pangea consisting of present-day North America, Europe and Asia.

Mesozoic Era

The time when dinosaurs ruled the earth from 225 to 65 million years ago. Made up of three periods: Triassic, Jurassic and Cretaceous Periods.

Omnivore

An animal that eats both plants and meat.

Ornithischian

One of the two main groups of dinosaurs. The name means 'bird hipped'. All dinosaurs in this group were plant eaters. The other group of dinosaurs was Saurischian.

Palaeontology

The scientific name for the study of fossils. A palaeontologist is a person who studies fossils.

Petrification

Means 'turning to stone', as when fossils become petrified.

Prehistoric

Means 'before history'. This refers to the time before written history existed.

Quadruped

An animal that usually uses four feet to move about.

Reptile

A cold blooded animal with a scaly skin. Reptiles hatch from eggs that are laid on land. Dinosaurs were reptiles and some present-day reptiles include crocodiles, snakes and lizards.

Saurischian

One of the two major groups of dinosaurs. The name means 'bird hipped'. Dinosaurs in this group were both meat-eaters and plant-eaters. The other group of dinosaurs was Omithischian.

Scavenger

An animal that feeds on dead animals killed by other animals, rather than hunting for itself.

Skeleton

This is a framework of bones that holds up the body of an animal. Fossilized skeletons are all that is left of dinosaurs today.

Trilobite

A prehistoric marine creature that had a hard shell. Many fossils have been found of these trilobites who existed even before the dinosaurs.

Vertebrates

These are animals with backbones. Amphibians, birds, fish, mammals and reptiles, as well as man, are all vertebrates. Animals without backbones are called invertebrates, e.g. jellyfish.





