

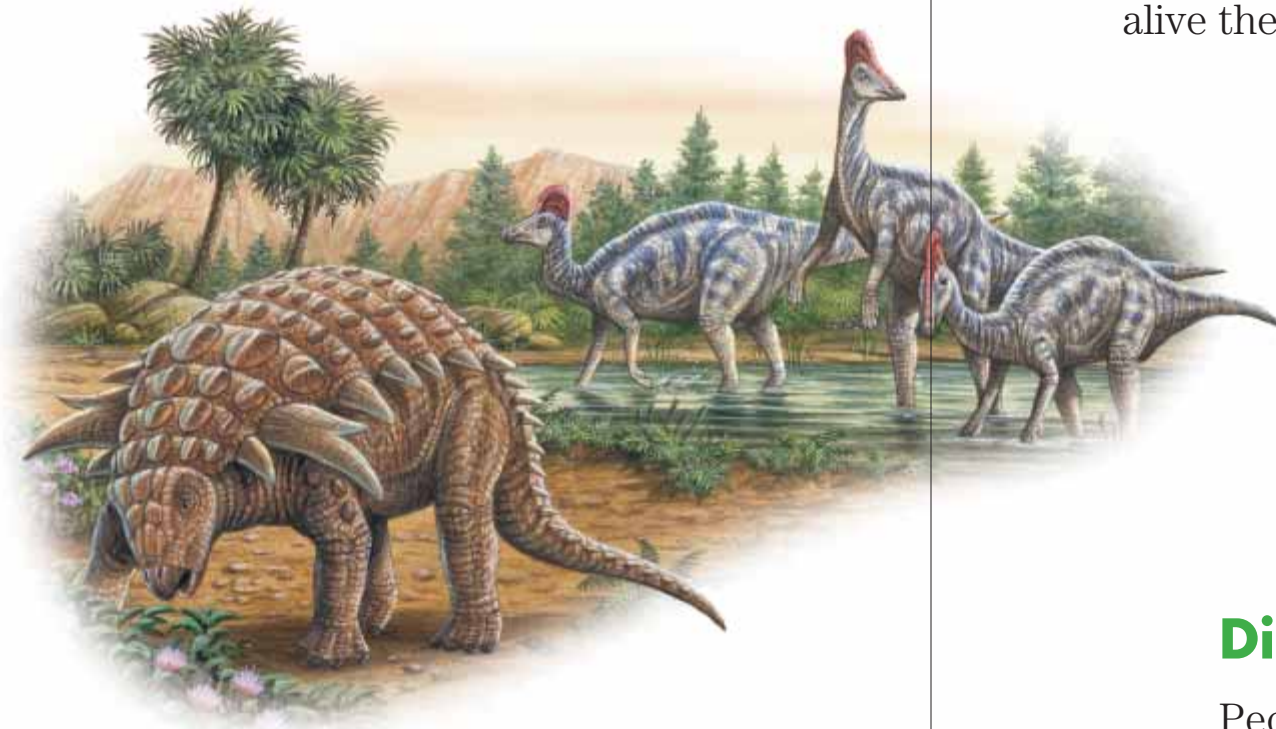
Dinosaur Time-line

How long ago did the dinosaurs live?

The Age of Dinosaurs began nearly 250 million years ago, but the first true dinosaurs appeared closer to 220 million years ago. Some dinosaurs evolved to become the largest and most powerful animals in the world.

What was their world like?

In some places, there were great deserts. In others, there were steamy swamps and green jungles. But overall, it was much warmer than today. There were many plants, and the first plants with flowers appeared midway through the Age of Dinosaurs.



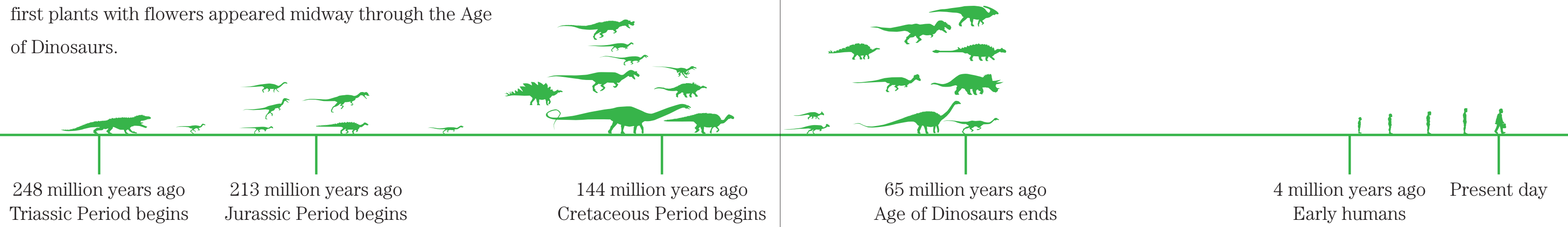
What other animals lived then?

Fish lived in the water. Insects flew in the air. Small mammals, tiny worms, and spiders lived on land. But most of the animals that we know today were not alive then.

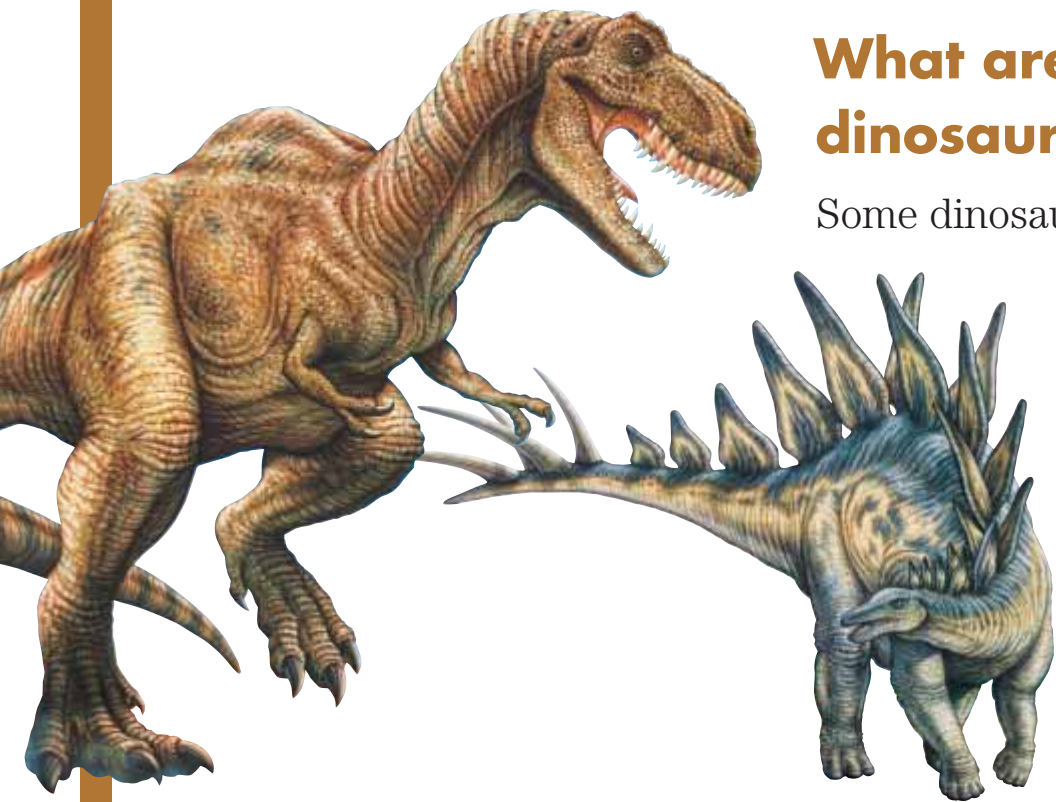


Did dinosaurs live at the same time as people?

People have been living on the earth for less than 4 million years. Humans never lived with dinosaurs. The Age of Dinosaurs ended more than 60 million years before the first people.



Special Features

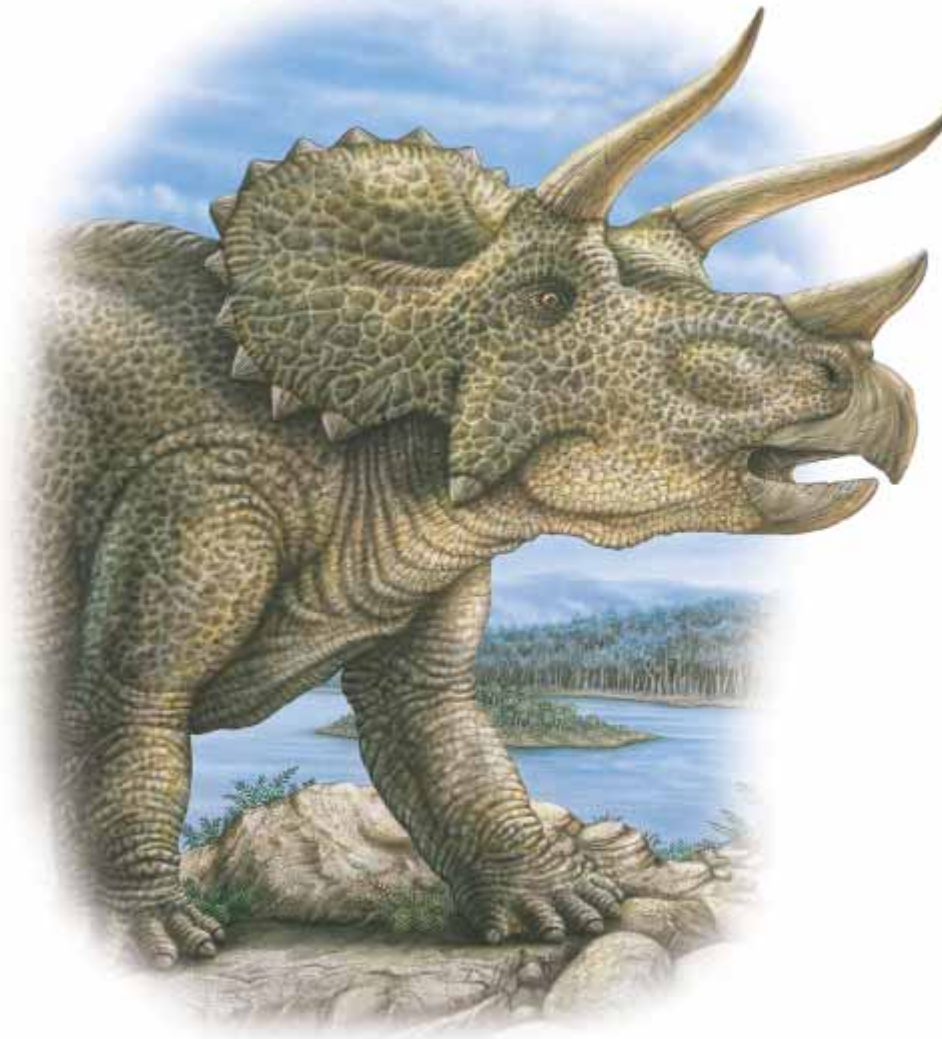
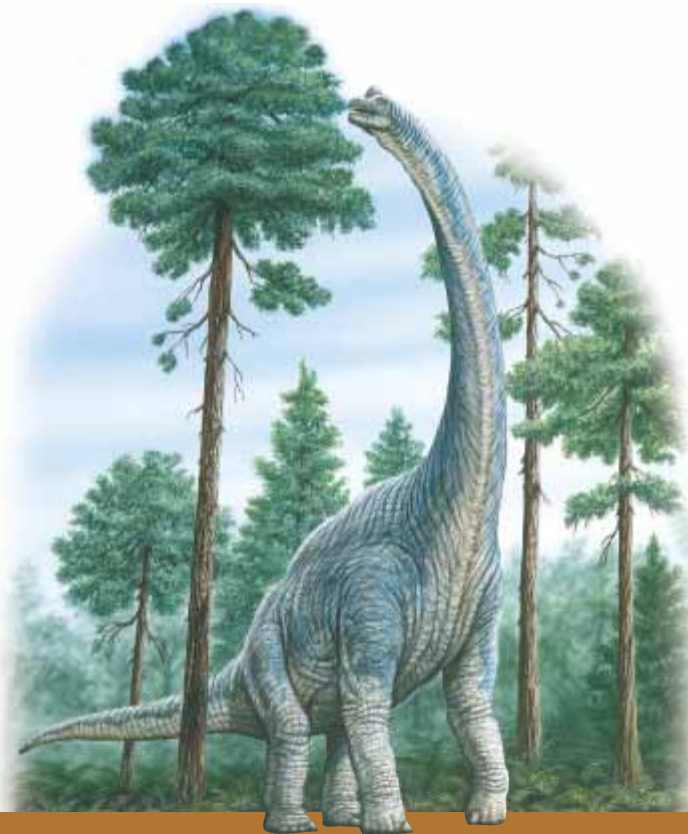


What are the pointy plates on some dinosaurs' backs?

Some dinosaurs, like *Stegosaurus* (steg-oh-SAW-rus), had bony plates on their backs. These plates made them look big and fierce and may have protected them from bites in battle. Some dinosaurs' backs were covered with flat plates that acted as body armor.

Why did some dinosaurs have such long necks and tails?

By moving their long necks from side to side, giant dinosaurs, like *Apatosaurus* (a-PAT-oh-SAW-rus), could eat many leaves without moving their bodies. Their tails helped them balance and may have been used to swat away enemies. They may also have been cracked like whips to make loud noises.



Why did some dinosaurs have horns?

Triceratops (try-SER-a-tops) had three horns on its head. It used the horns to fight. Some other dinosaurs had spikes on their backs or on their tails. These short and slow dinosaurs used their horns and spikes to fight off fierce meat-eaters.

Did dinosaurs have claws?

Some dinosaurs had round feet like an elephant. Other dinosaurs had feet with long toes. Dinosaurs that hunted had hands with claws. The claws helped them fight. *Deinonychus* (die-NON-ih-kus) had three claws on each hand and a big fourth claw on each foot.



What Dinosaurs Ate

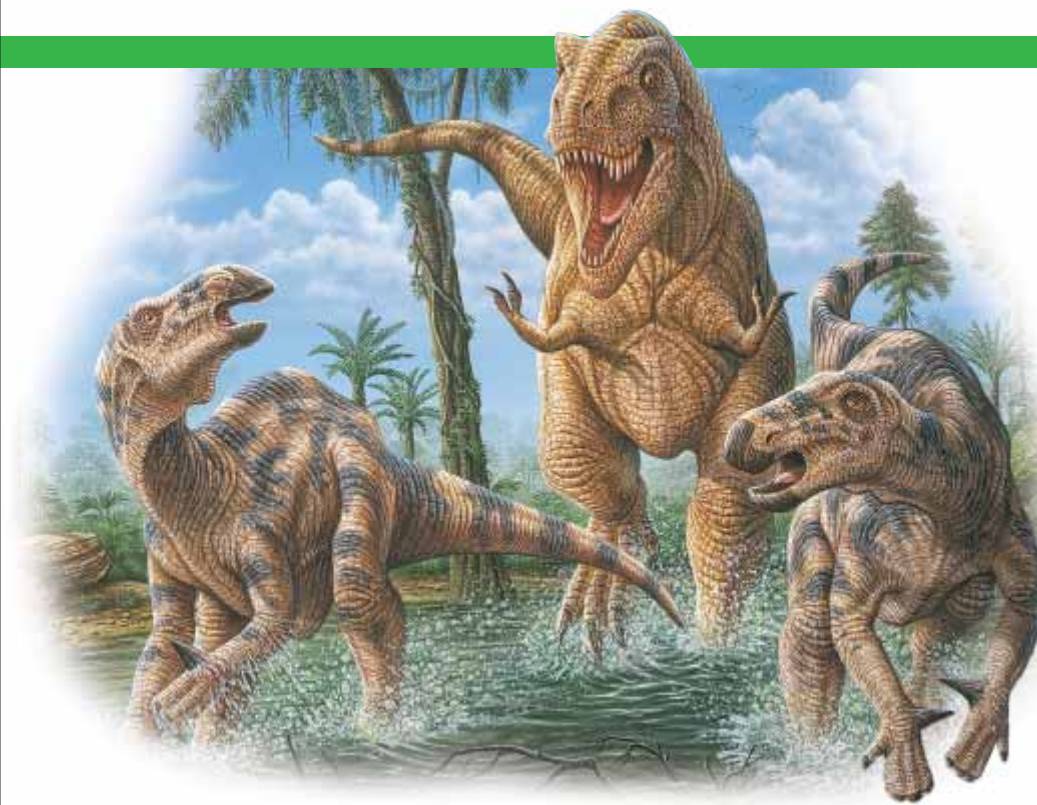
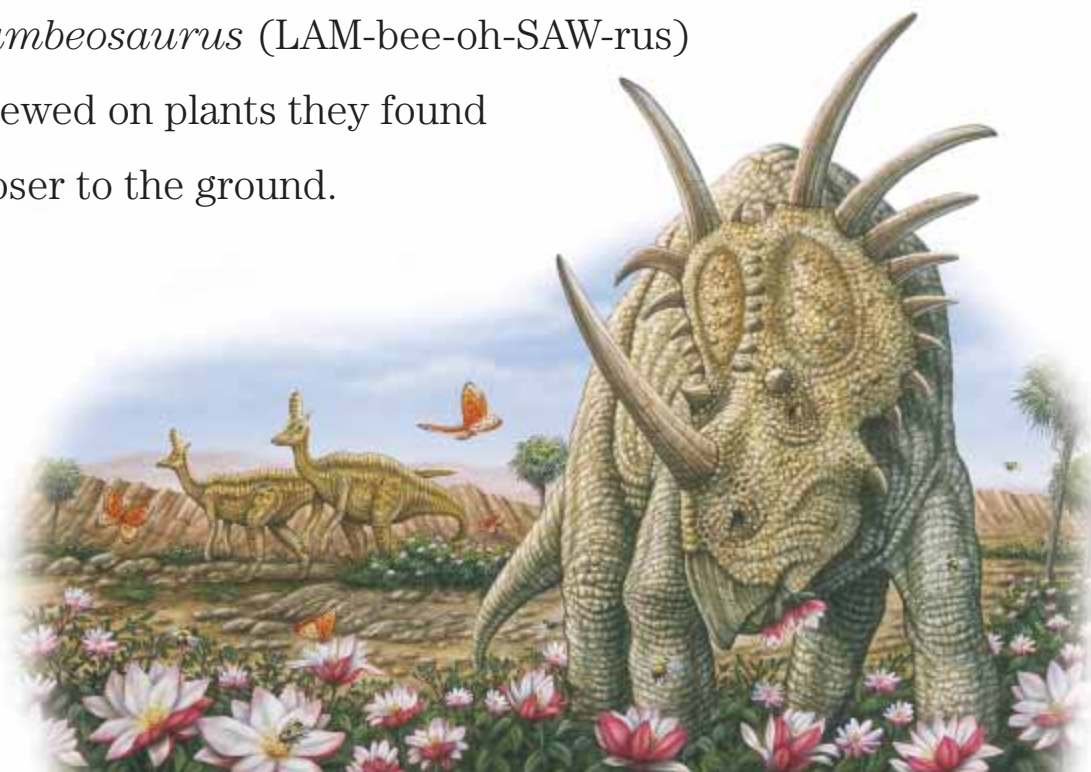


What did dinosaurs eat?

Some dinosaurs, called herbivores, ate plants. They had flat teeth. Other dinosaurs had sharp, pointy teeth they used to eat meat. Dinosaurs that ate other dinosaurs are called theropods.

Which dinosaurs ate plants?

Most of the big dinosaurs like *Apatosaurus* and *Diplodocus* (dip-LOD-ih-kus) ate leaves and branches from trees. *Styracosaurus* (STY-rack-oh-SAW-rus) and *Lambeosaurus* (LAM-bee-oh-SAW-rus) chewed on plants they found closer to the ground.

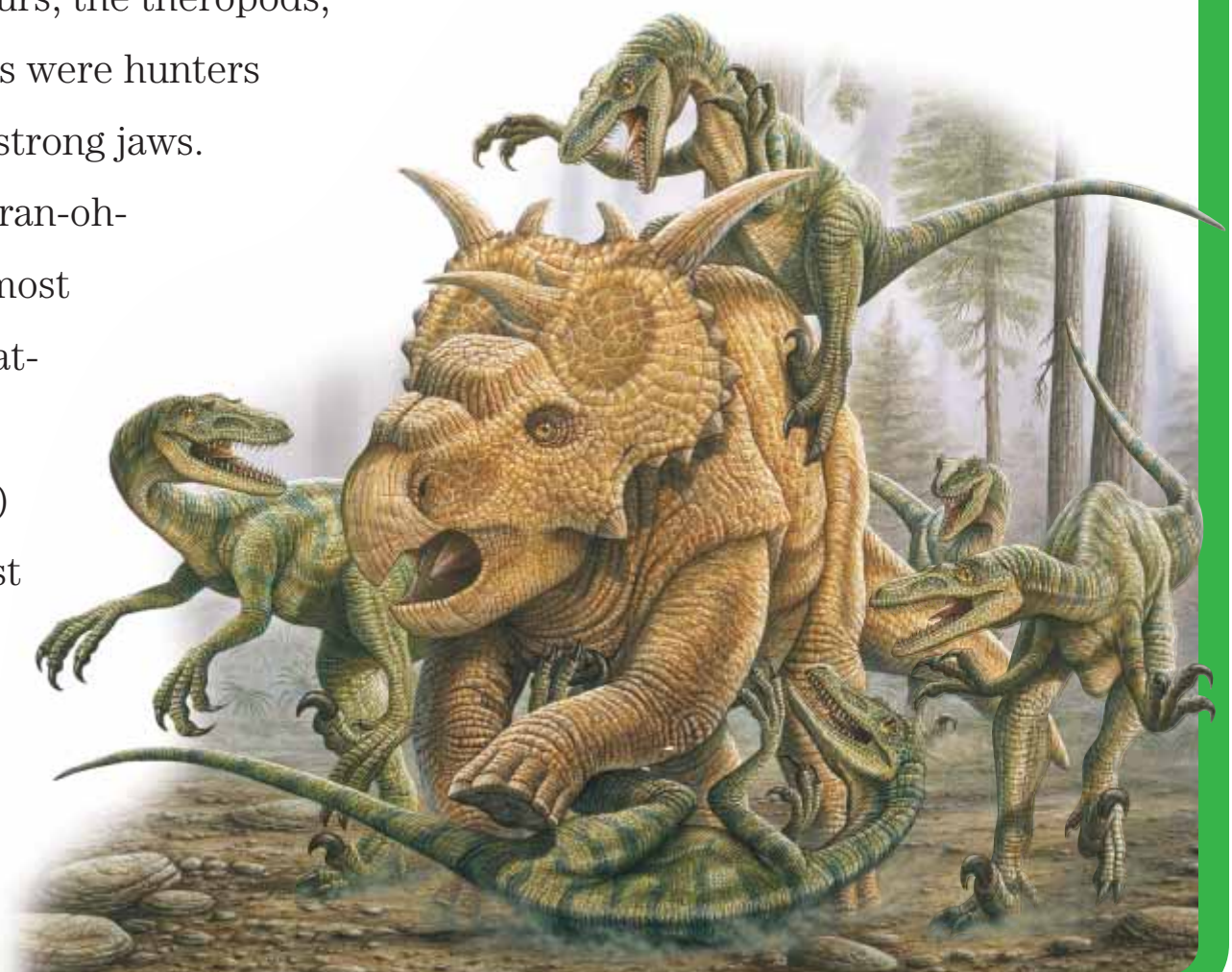


How did dinosaurs hunt?

Meat-eating predators such as *Velociraptor* (vel-OS-ih-rap-tor) were often faster than their prey. They chased slower animals and leaped on them. They used their claws and teeth to attack the underbelly or neck of their prey.

Which dinosaurs ate meat?

Only one group of dinosaurs, the theropods, ate meat. These dinosaurs were hunters and had sharp teeth and strong jaws. *Tyrannosaurus rex* (ty-ran-oh-SAW-rus recks) was the most fearsome of the giant meat-eaters. *Giganotosaurus* (jy-GAN-oh-toe-SAW-rus) may have been the biggest theropod. Small meat-eaters had the biggest brains and were the most deadly hunters.



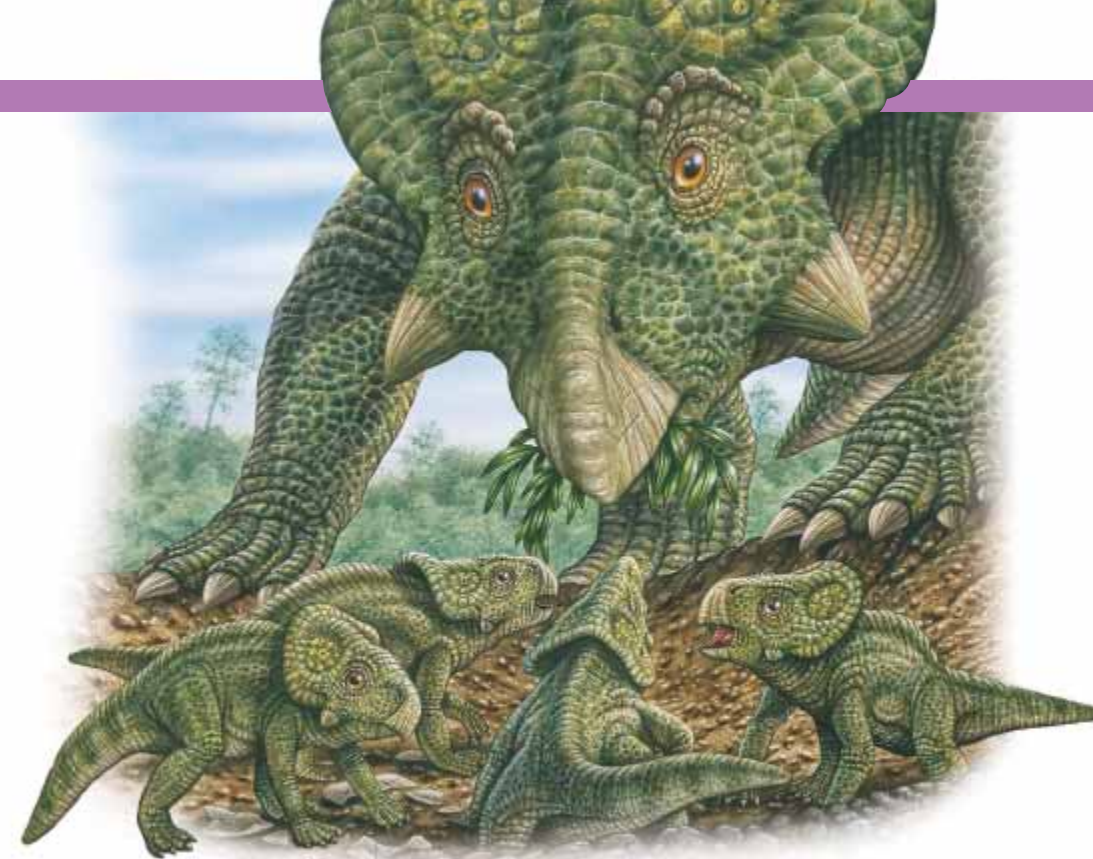
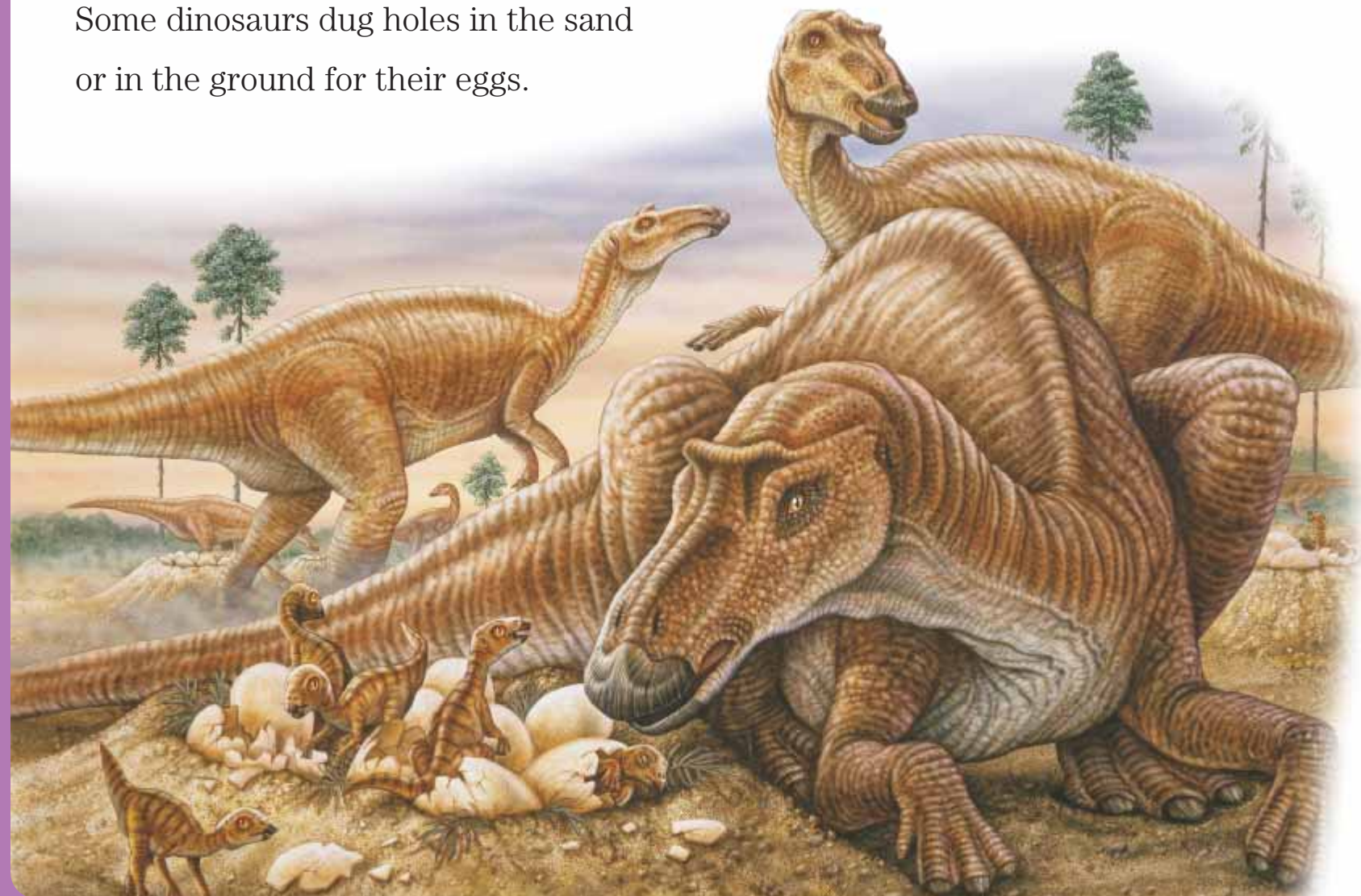
Dinosaur Babies

How did dinosaurs keep their eggs safe?

Dinosaurs laid eggs on land much like lizards, snakes, and turtles do. They made nests to keep their eggs warm. Some dinosaurs dug holes in the sand or in the ground for their eggs.

How did the eggs hatch?

A dinosaur egg was not very big or hard. When the baby grew big enough and strong enough, it broke through the thin shell.

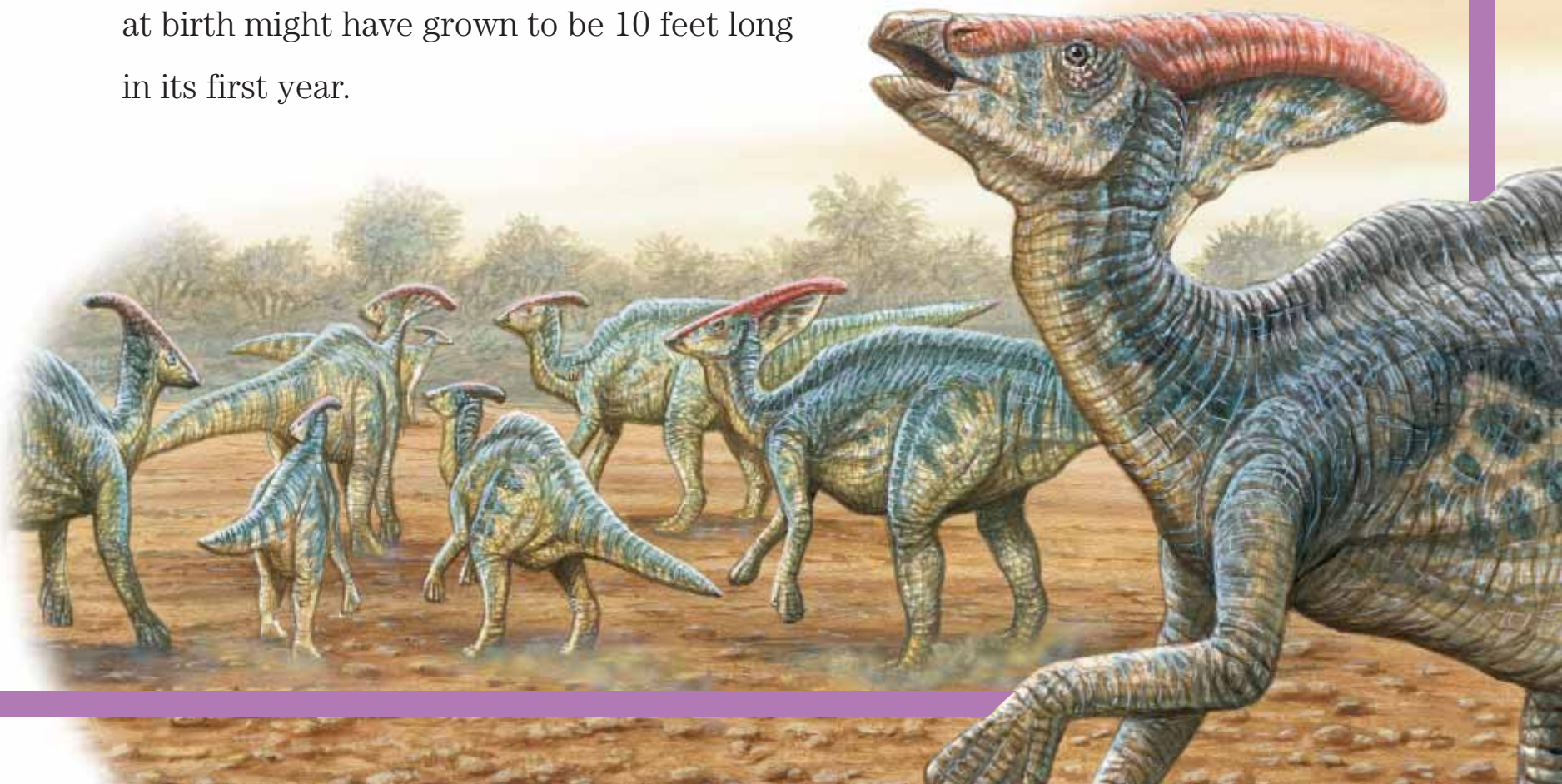


Who took care of the babies?

After babies hatched, they stayed near the nest. Often the parents looked after the babies, brought them food, and protected them until they were able to take care of themselves.

How long did it take for a dinosaur to grow up?

Baby dinosaurs started small. While they grew, they usually had protection from their families. They probably grew quickly. For example, a *Parasaurolophus* (PAR-uh-SAW-roh-LOAF-us) that was only 1 foot long at birth might have grown to be 10 feet long in its first year.



Flying Reptiles



Did dinosaurs have wings?

The pterosaurs had wings. They were flying reptiles and relatives of the dinosaurs. Their wings were thin flaps of skin that stretched from a long finger on each hand to the sides of their bodies. *Pterodactylus* (TER-uh-DACK-til-us) and *Pteranodon* were 2 winged reptiles.

Did dinosaurs have beaks?

Some land dinosaurs, like *Triceratops*, had short beaks like a parrot. Other dinosaurs had bills like a duck. Flying reptiles, like *Pteranodon* (ter-AH-no-don) had longer beaks that they used to catch insects and smaller animals. Some of the beaks had rows of sharp teeth inside.



Did dinosaurs have feathers?

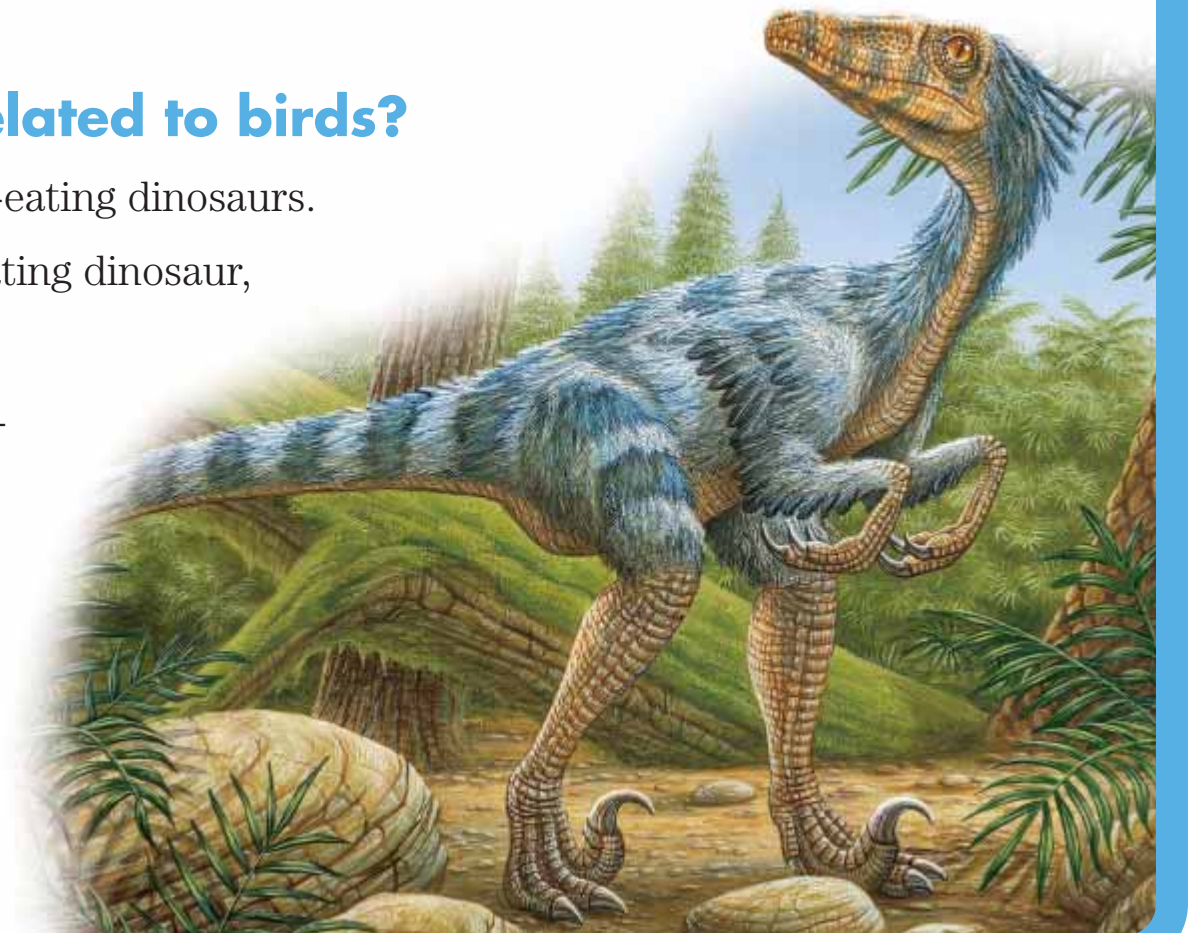
Most dinosaurs had tough, scaly skin like lizards have. Other dinosaurs, closely related to the first birds, probably had feathers. *Archaeopteryx* was a primitive bird. Shapes like feathers were found in the rock around its fossilized bones. Similar feather shapes have been found near other dinosaur fossils, too.

Are dinosaurs related to birds?

Birds evolved from meat-eating dinosaurs.

Deinonychus, a meat-eating dinosaur, may have had feathers.

Archaeopteryx (AR-key-OP-ter-icks) may be a link between dinosaurs and birds. Like birds, dinosaurs made nests and had clawed feet.



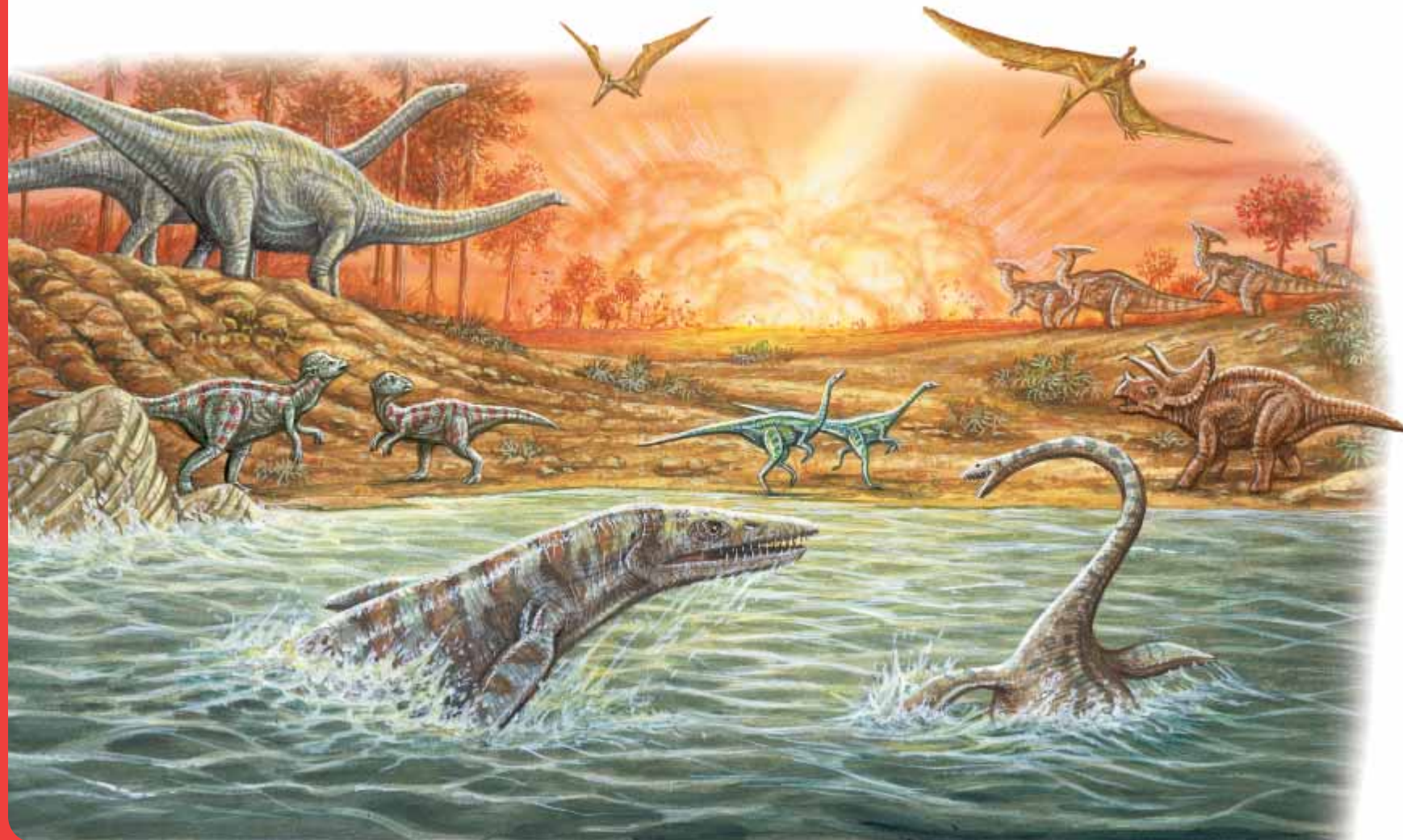
Dinosaur Extinction

How long did dinosaurs live on Earth?

The Age of Dinosaurs lasted nearly 185 million years. The last of the dinosaurs died about 65 million years ago.

How did the dinosaurs die?

The world the dinosaurs lived in changed a lot over 185 million years. Maybe the weather got too cold or too hot. Some scientists believe that an asteroid struck the earth. No one knows for sure.



How long have people been studying dinosaurs?

Dinosaur fossils were first found and studied in 1820 by Dr. Gideon Mantell. They were the large teeth and a few bones of an *Iguanodon* (ig-WAH-no-don). In 1841, a scientist named Sir Richard Owen began calling these prehistoric creatures “dinosaurs.”

Where can I go to see a dinosaur today?

Except for living birds and crocodiles, fossils are all that remain from the Age of Dinosaurs. Real fossilized dinosaur bones are on display in museums. The giant dinosaurs of the past live on only in books and movies, but their descendants, the birds and crocodiles, are alive and well.

