



THE MESOZOIC ERA

The **Mesozoic Era** is the name given to the time that dinosaurs roamed Earth.

It is split into three periods:

The Triassic Period

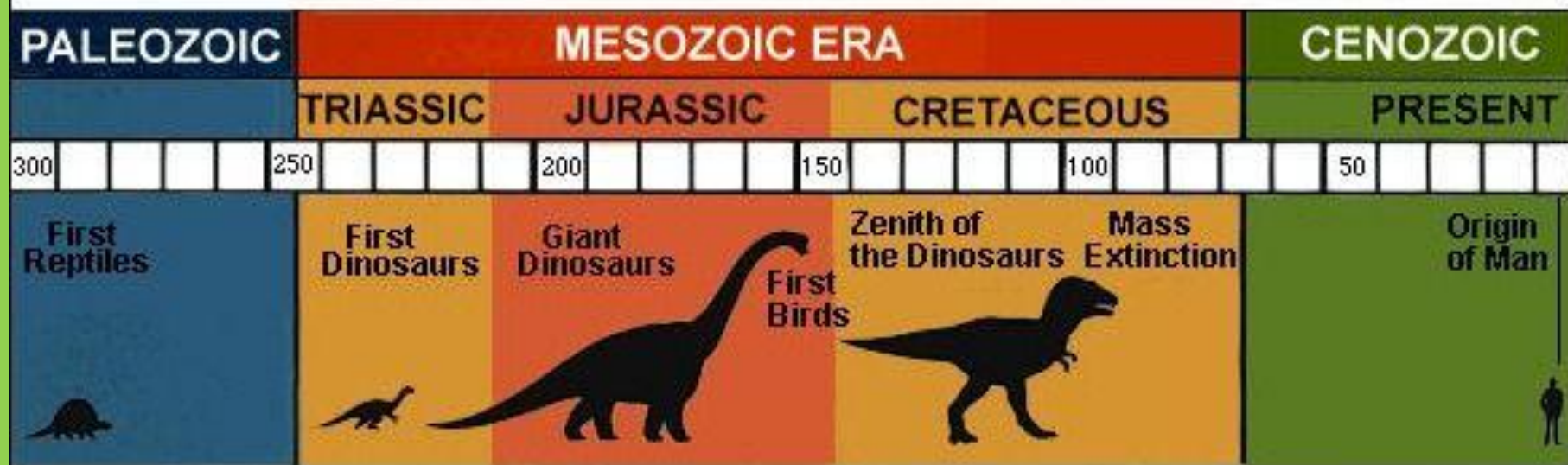
The Jurassic Period

and

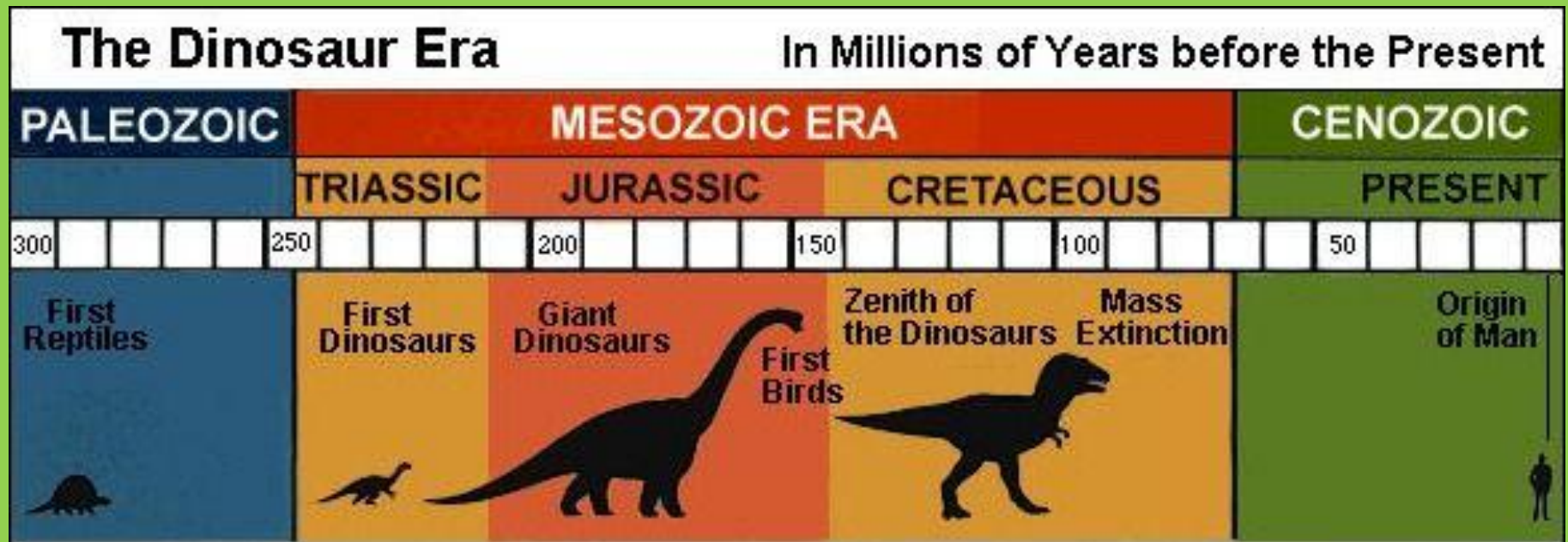
The Cretaceous Period

The Dinosaur Era

In Millions of Years before the Present



What was the **Triassic** period like?



The Triassic Period

250 – 200 million years ago

Ferns and moss,
not grass

Dry



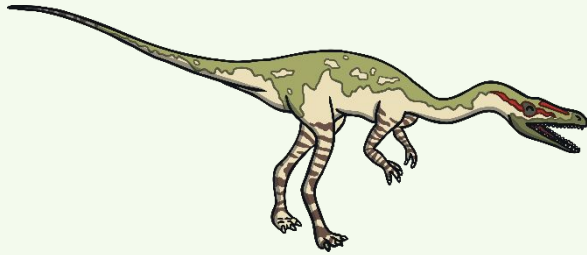
Vast deserts

One land mass from pole to pole

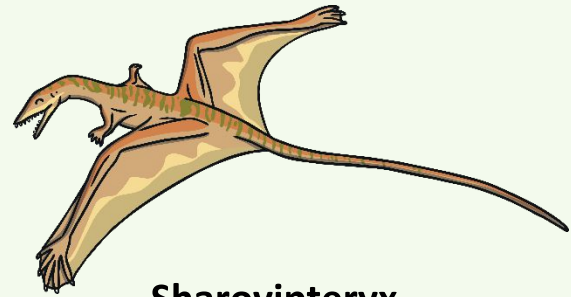
No polar ice caps

Warm seas

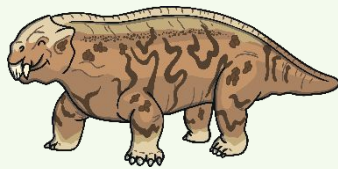
Triassic Period



Coelophysis



Sharovipteryx

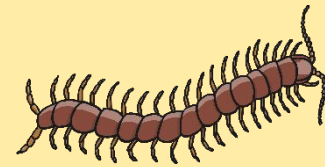


Lystrosaurus



Eozostrodon

These creatures also existed during the Triassic Period.



The dinosaurs arrive

THE TRIASSIC: 245 - 204 MYA

At the end of the Triassic, when dinosaurs first appeared, there were vast areas of hot, dry desert. But near rivers and coasts there were lush forests of tree ferns. In drier areas there were thinner forests of conifers (cone-bearing trees), rather like the monkey-puzzle trees of today, and cycads, a palm-like plant. In these Triassic forests lived dinosaurs such as *Anchisaurus*, *Coelophysis* and *Saltopus*.

Forests of conifers and cycads grew near water.

An early type of crocodile, *Protosuchus*, lived mostly on land.

There was no grass; instead, ferns grew over the ground.

Triassic mammals were small, and easy prey for dinosaurs.

Plateosaurus was the first large dinosaur. It was about 8m long and was tall enough to reach and eat leaves on trees.

Is it true

that there were no flowers in the Triassic?

Yes, it is true that there were no flowers at all during the Triassic. Nor were there any flowers in the Jurassic. Flowering plants did not appear on Earth until the middle of the Cretaceous Period.

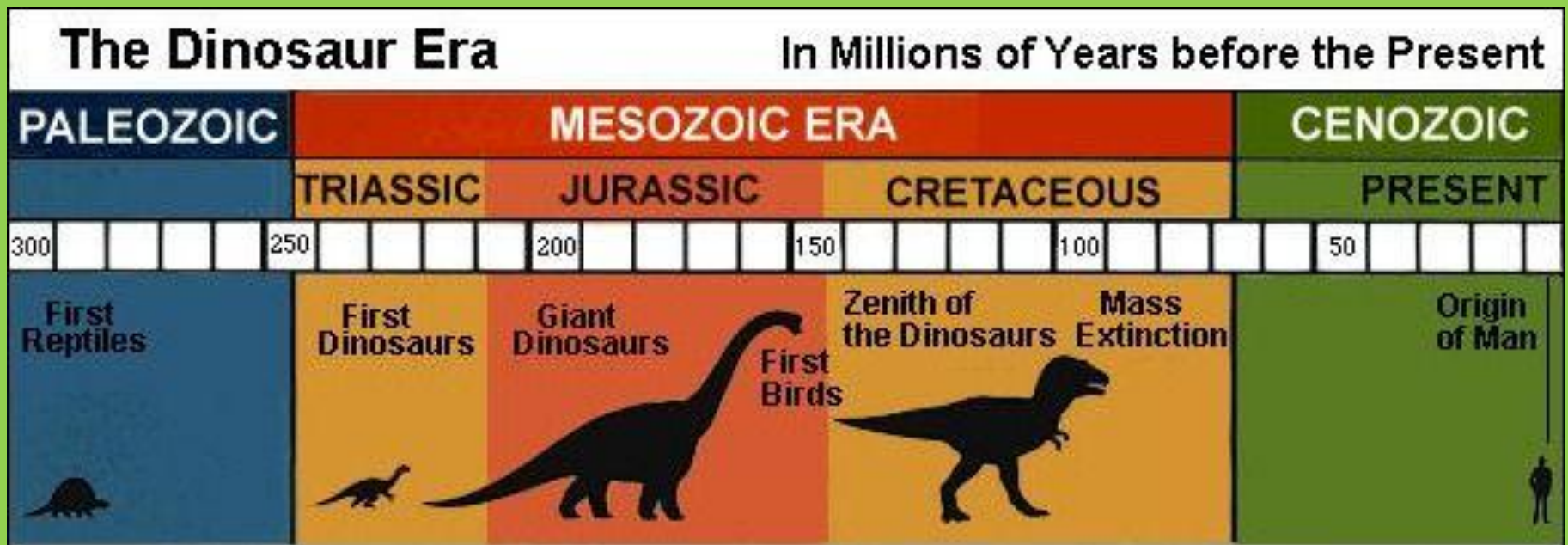
The flying reptile *Kuehneosaurus* could glide from branch to branch searching for insects to eat.

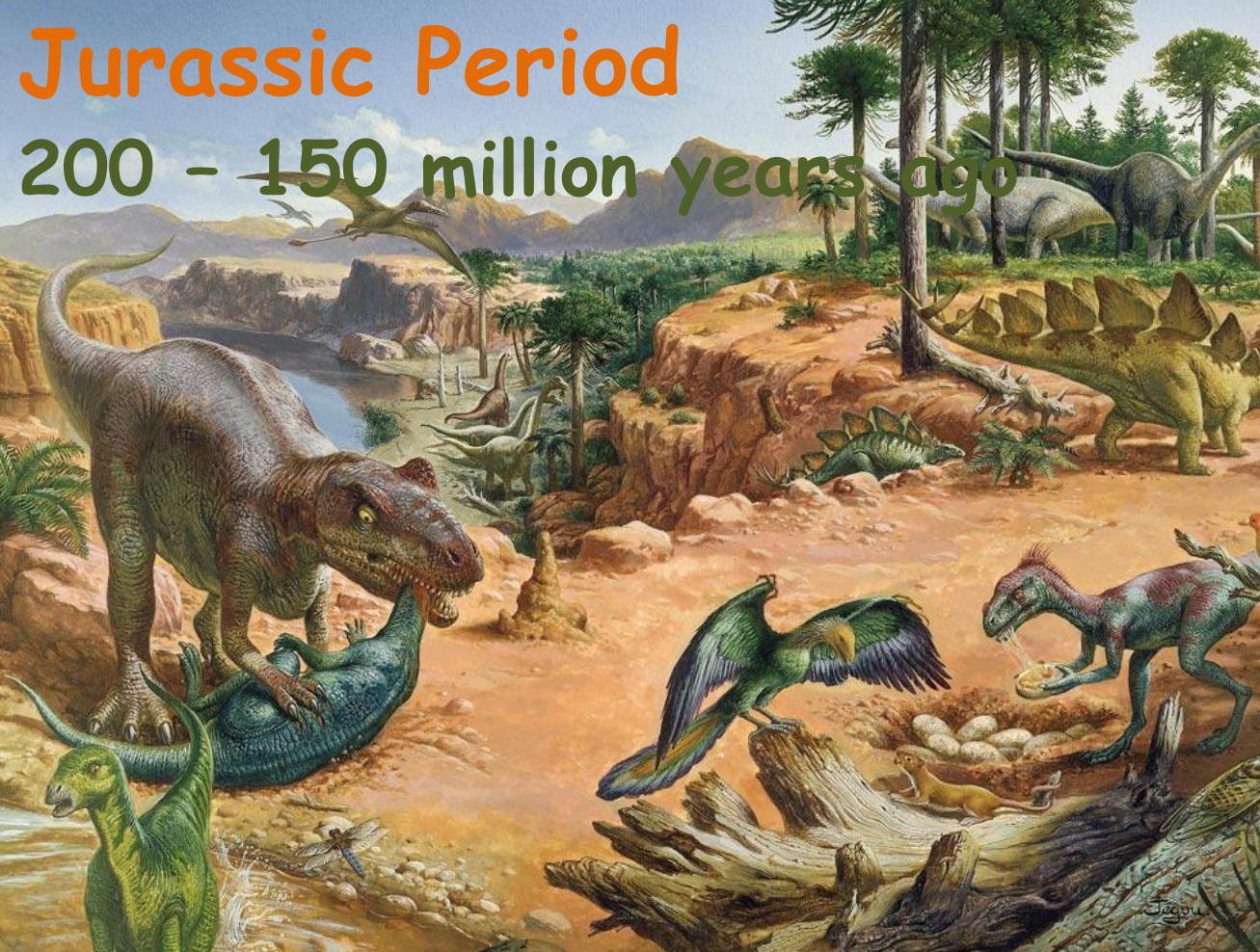
Glevosaurus was not a dinosaur, but an early lizard-like animal.

Procompsognathus was a fast-running meat-eater that preyed on insects, small mammals and reptiles.

Horsetails were plants that flourished near water.

What was the **Jurassic** period like?





Jurassic Period

200 - 150 million years ago

Green
Vegetation
flourished.

New dinosaurs
emerged.
They were
getting bigger!

Warm, wet climate.

Birds emerged.

The time of the giants

THE JURASSIC: 204 – 140 MYA

The weather was warm and wet in the Jurassic, which meant that many plants flourished. The world was greener, with many thick forests. In these conditions, giant sauropod dinosaurs, such as *Apatosaurus* and *Brachiosaurus*, evolved. There was plenty of vegetation for these huge plant-eaters to live on. Birds first appeared in the Jurassic.

The pterosaurs – this one is *Rhamphocephalus* – were winged reptiles that lived at the same time as the dinosaurs.

Tree ferns grew well in the tropical conditions.

This early stegosaur, *Dacentrurus*, was a plant-eater.

Cetiosaurus was a large sauropod. It fed on plants.

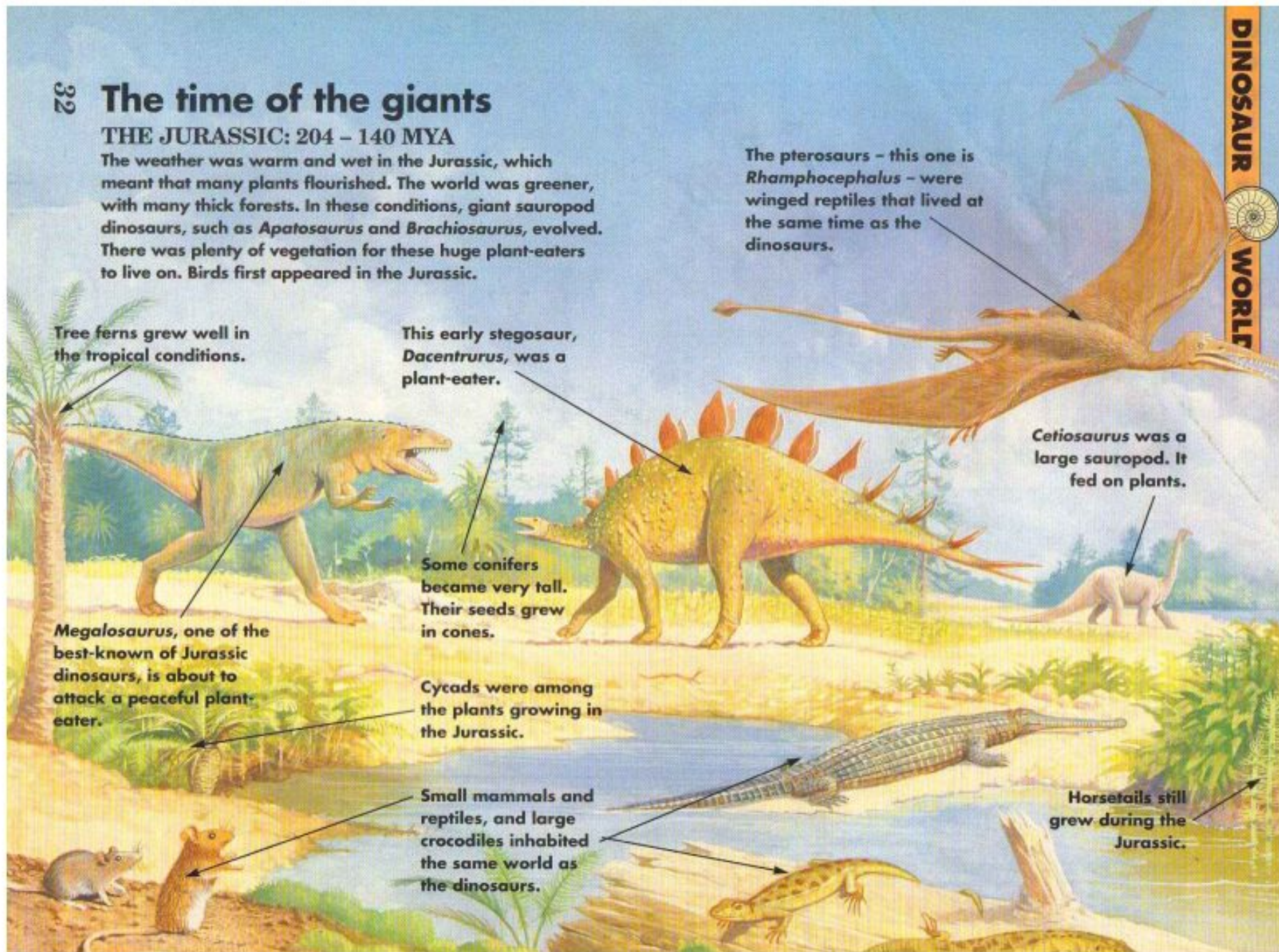
Megalosaurus, one of the best-known of Jurassic dinosaurs, is about to attack a peaceful plant-eater.

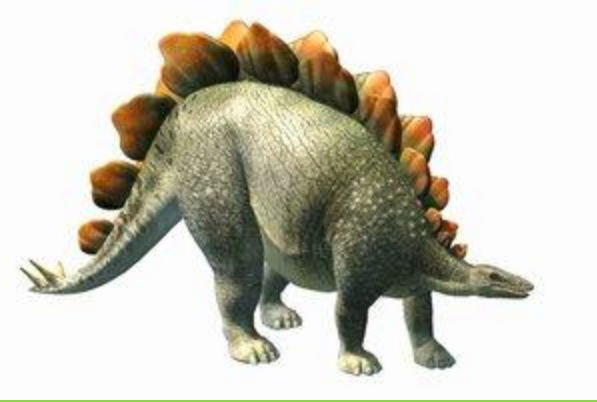
Some conifers became very tall. Their seeds grew in cones.

Cycads were among the plants growing in the Jurassic.

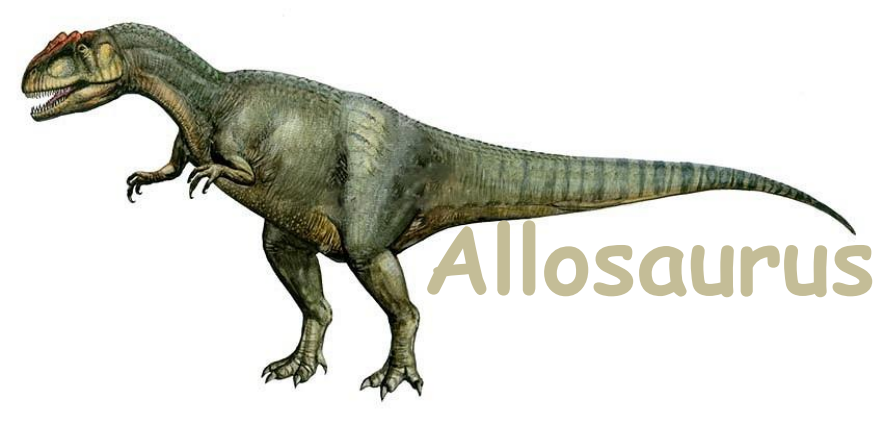
Small mammals and reptiles, and large crocodiles inhabited the same world as the dinosaurs.

Horsetails still grew during the Jurassic.





Stegosaurus

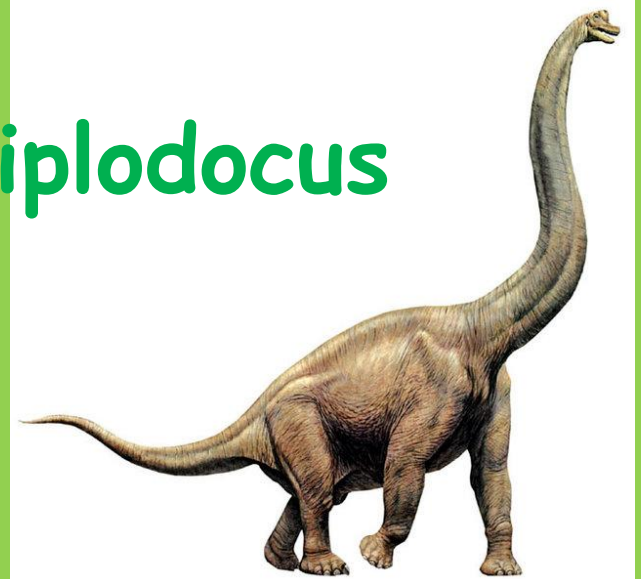


Allosaurus



The first known bird - Archaeopteryx

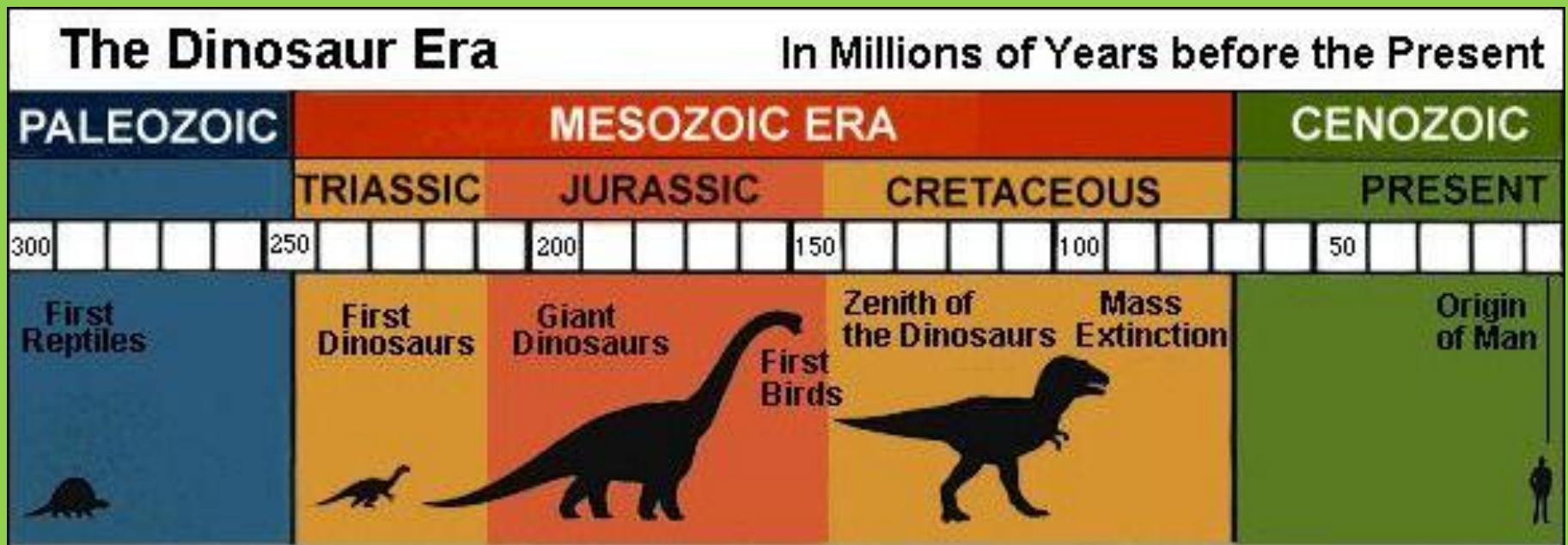
Diplodocus



Brachiosaurus



What was the **Cretaceous** period like?



Cretaceous Period

150 – 65 million years ago



There
were
volcanoes.

Earth became wetter
with higher seas,
which created
islands.

Lots of fast meat
eating dinosaurs!

First flowers emerged
– rose, magnolia.

Monsters and flowers

THE CRETACEOUS: 140 – 66 MYA

The first flowering plants, such as magnolia and rose, appeared towards the end of the Cretaceous. Ferns, horsetails, conifers and cycads continued to grow too. The massive sauropod dinosaurs gave way to faster-moving meat-eaters, such as *Tyrannosaurus* and *Albertosaurus*, and plant-eaters such as *Iguanodon*.

Many birds, such as waders, cormorants and owls, evolved during the Cretaceous.

Triceratops, one of the best-known dinosaurs, lived during the Cretaceous Period.

Large pterosaurs (flying reptiles) shared the skies with feathered birds.

Broad-leaved flowering trees, such as oaks, gradually formed forests during this period.

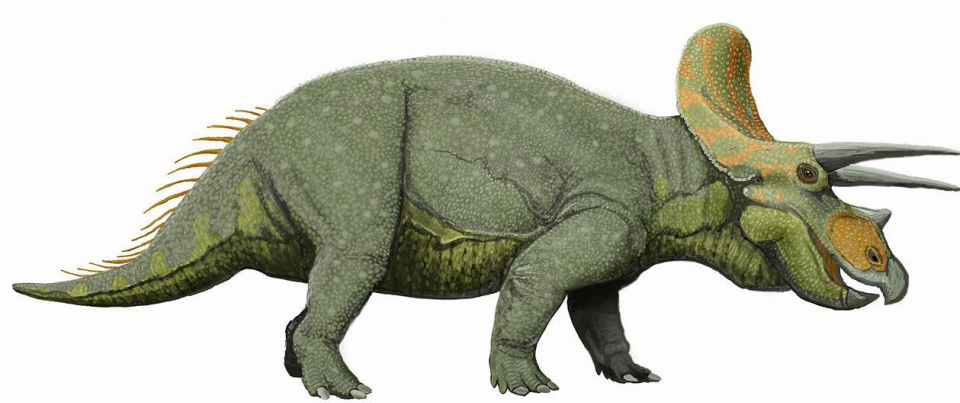
Parasaurolophus were dinosaurs with long tube-like crests on their heads.

During the middle of the Cretaceous, flowering plants appeared on Earth for the first time.

Corythosaurus was a duck-billed dinosaur that ate plants.

Mammals existed, but they were still small animals at this time.

Ostrich-like *Stenonychosaurus* was a fast-running meat-eater.



Triceratops

T-Rex



Velociraptor

Ankylosaurus



Deinonychus

Cretaceous Period

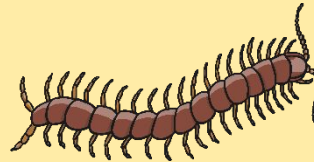
During the Cretaceous Period small mammals and insects continued to live alongside the dinosaurs.



Adelobasileus



Juramaia



Activity

Pick one of the periods: Triassic, Jurassic or Cretaceous.

You are going to share what you have learnt about that period.

How you do this is up to you but here are some suggestions.

- Write sentences

- Draw the landscape and dinosaurs - a bit like the pictures on the slides.

- Present a little video and film it.

- If you have some use your dinosaur toys to role play - send a video.

- Create a poster.

- Make a quiz..