

Australia in Isolation

Stage 6 Evolution of Australian Biota



**Australian Fossil
and Mineral Museum**
HOME OF THE SOMERVILLE COLLECTION

Name

In the MasterFoods Fossil Gallery go to the showcase Australia in Isolation

Describe a geological event which resulted in the evolution of unique flora and fauna in Australia

When did this event occur? _____

Describe the climate in Australia at the following times:

Date	45 Ma Millions years ago	30Ma	15Ma	3Ma
Era/ Period				
Climate				

What has been the general trend for the change in climate of Australia in the Cainozoic era?

Draw and label the skull of the Diprotontid

What evidence would indicate that the Diprotontid fossil in the showcase was a browsing herbivore?

Where was the fossil found and what is the age of the fossil?

What conclusions can you make about the climate and flora of Australia when this Diprotontid fossil was lived?

Back at school use information gathered to discuss why most Australian megafauna became extinct.

Timeline for Australia

Stage 6 Evolution of Australian Biota



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In the MasterFoods Fossil Gallery, gather information to complete the following

Museum information panel	Date	Geological Era/ Period	Event	Continent or Supercontinent Australia part of	Draw an Australian Fossil from the list. Include name, date and location
Life Begins in the Ancient Seas	1800 Ma	_____ Era	Early life fossils formed on land or sea? _____		
Complex Life Evolves	1000 Ma	_____ Era	Parts of Western Australia above sea level. Australia joined to _____		
An Explosion of Life	544 Ma	_____ Era _____ Period	Parts of Western Australia above sea level. Australia joined to _____		
Moving onto Land	Ma	Palaeozoic Era Permian Period	Most of Australia above sea level. Australia joined to _____		
Jurassic Lake	250 Ma	Mesozoic Era _____ Period	Supercontinent Pangea split into two landmasses		
Inland Seaworld	65 Ma	Mesozoic Era Cretaceous Period	Australia had an inland sea		
Australia in Isolation			Australia split from Antarctica and moved North		
Australia in Isolation	8Ma	Cainozoic Era Quarternary Period			

Fossils

Stromatolite
Dickinsonia
Trilobite

Glossopteris
Cavenderichthys talbragarensis
Pleisosaur

Banksia leaf
Diprotodontid

Formation of Gondwana

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At the Museum Go to the MasterFoods Fossil Gallery

Read Text Panels *Middle Life*, *Ruling Reptiles* and *Australia in Isolation* to complete these activities.

Draw images of the position of the continents during the Triassic, Jurassic and Cretaceous periods. Label the super continents Pangea, Laurasia and Gondwana



Triassic

Date:



Jurassic

Date:



Cretaceous

Date:

Use the information from the panel *Middle life* to name the present day continents that were part of Gondwana

Use the maps from *Ruling Reptiles* panel and information from the panel *Australia in Isolation* to outline the steps in the breakup of Gondwana

Back at school discuss how evidence you have gathered in the Museum supports the theory of plate tectonics

Glossopteris and *Gangamopteris*

Stage 6 Evolution of Australian Biota



Australian Fossil
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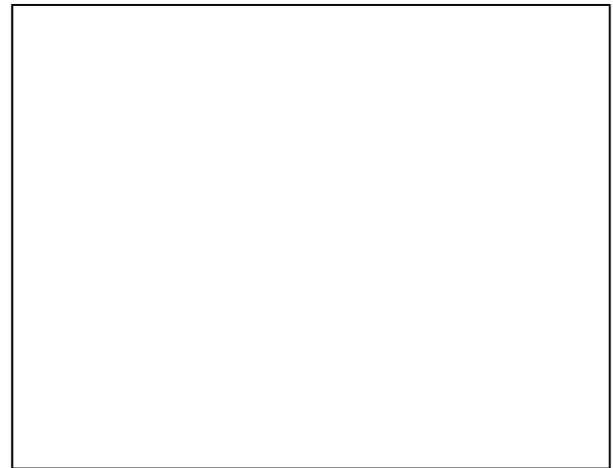
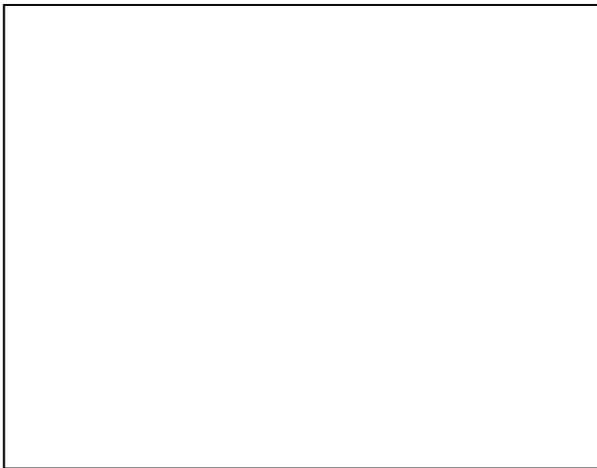
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Name _____

At School before your visit discuss: What are *Glossopteris* and *Gangamopteris*?

In the MasterFoods Fossil Gallery go to the showcase **Moving onto Land**

Identify, draw and label the *Glossopteris* and *Gangamopteris* fossil specimens in the boxes below.

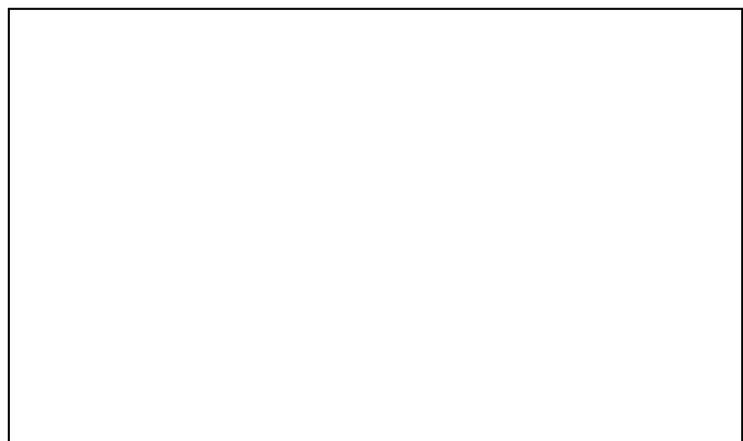


Outline the main difference between *Glossopteris* and *Gangamopteris*

These fossils appear in the fossil record of
the _____ Period
of the
_____ Era.

The fossils in this showcase are
_____ Ma

**Draw and label a map of the Earth during
this Period in the box to the right.**



Back at school discuss the fact that *Glossopteris* fossils have been found in Australia, India, South America, Africa and Antarctica. How does this information support the theory that the continents were once connected as shown in the map above?