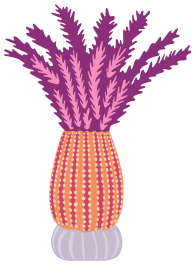
Ancient Oceans Family Trail

Ages 7+

The First Animals



Xianguangia

540 million years ago there was an explosion of life in the oceans called the Cambrian explosion. The Earth looked very different to today, imagine a warmer environment with much more sea than land. This was the world in which the first animals evolved. Strange looking creatures appeared underwater with spines, shells, plates and tubes. This picture may look like a pineapple, but it is actually a reconstruction of an animal called ***Xianguangia***. Explore this exhibition to find out more about these extraordinary animals.

1 Feeding Frenzy

The first animals ate in similar ways to today's ocean animals. Answer the questions below about how these three modern day animals on display in the double window case feed:

1. ***Pinna nobilis (Pen Shell)***: **How does it eat?**

13. ***Nephrops norvegicus (Norway Lobster)***: **How does it find its prey?**

3. ***Mopalia lignosa (Woody Chiton)***: **What does it eat?**

2 Creature Clues

Sometimes impressions like footprints or trackways can become fossilised, we call these trace fossils. They give us clues about where an animal went and what it got up to. On display are trace fossils made by the first animals, like this burrow. This fossil shows us how some sort of worm left behind a spiral shape as it burrowed into the seafloor.

What evidence could we find to show us that an animal has been in an area?

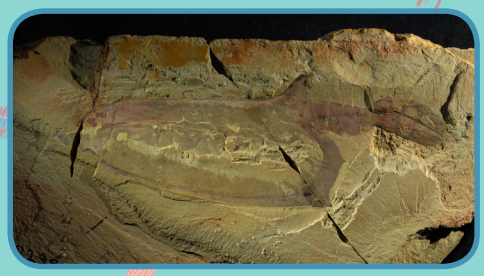
3 Fossil Jumble

Sometimes we don't have the whole remains of an animal as a fossil, we might just have fragments which need to be pieced together like a jigsaw. Look in the low display case opposite the trace fossils. This rock slab contains a jumble of different animal fossils, such as bits of trilobite.

Which part of the trilobite has been fossilised?

- ☐ Its soft body
- ☐ Its hard outer shell

4 Bringing fossils to life



Look at the fossil remains of ***Vetulicola cuneata*** (no.12 in the Chengjiang fossil case). This flat, faint outline of a first animal has been brought back to life using technology. Watch the video featuring Dr Imran Rahman whose job is to work out what this animal looked like and how it moved. See this animal in action at the **Cambrian Diver Game**.

Which modern day animal does this remind you of? How is it similar?

5 Drawing on evidence

In this exhibition, scientists and artists have used fossil evidence to create artwork and models showing their best guess of what the first animals looked like. Can you have a go at drawing a first animal using these pieces of information?

A tassle fringe along the shell edges

A creature with two oval shells clamped together

A long wiggly stalk

Draw what you think this first animal looked like.

You have just drawn ***Lingulella.*** Although this animal is now extinct, its modern relative is on display towards the end of the exhibition in a glass jar. Does your drawing look like its relative, **brachiopod *Lingula*?**

We hope you've enjoyed diving into the past to meet the very first animals!