The fossil record

Learning Objective

I can explain what the fossil record tells us about the past.

Me: ☺ ☺ ☺   Teacher: ☺ ☺ ☺

Fossils are the remains of plants and animals which died millions of years ago. After death, their remains fell to the ground where they were covered by layers of material. Over a long period of time, these became **sedimentary rocks**, preserving the shape of the dead organism inside.

Fossils are useful because they tell us about organisms that lived in the past. The depth at which fossils are found can give us clues as to how old they are, as more recent sediment forms on top of older rocks. The older a fossil is, the deeper the rock layer in which it is found.
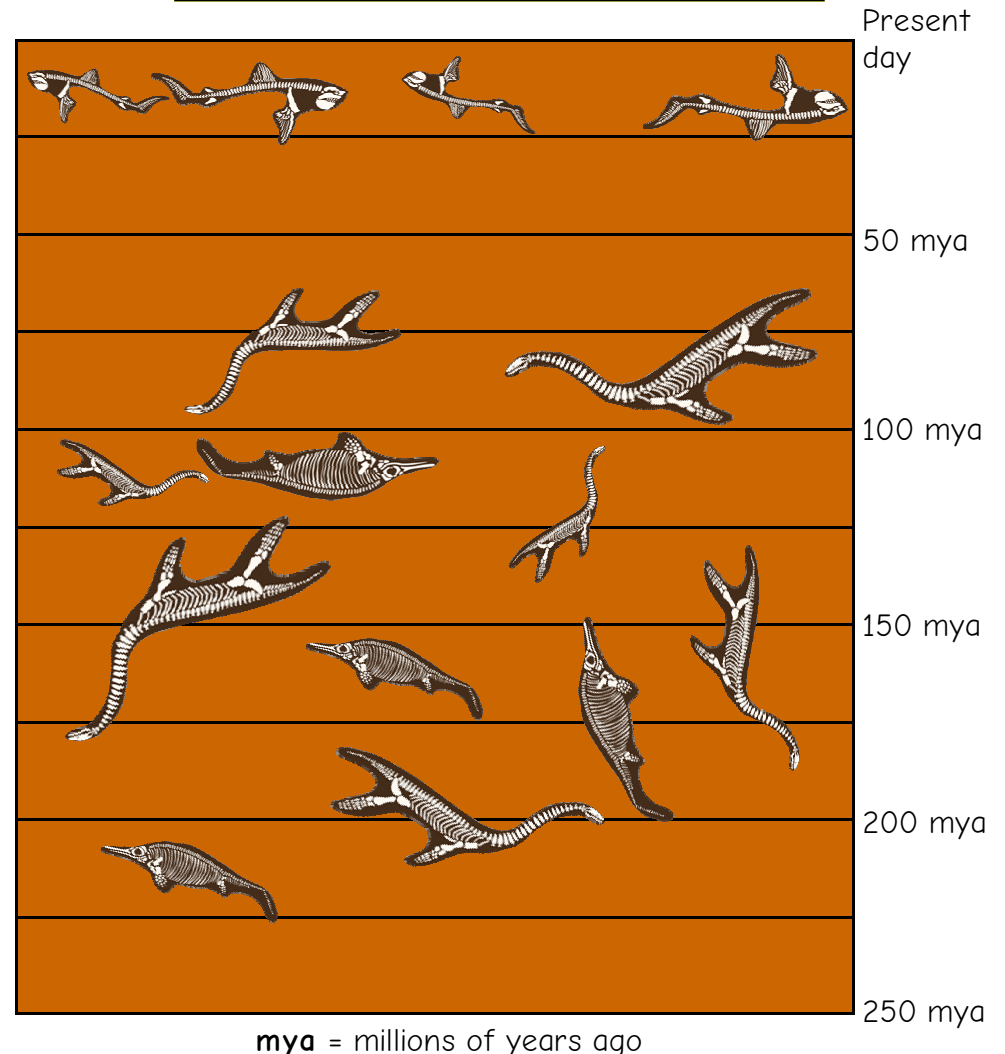
The fossil record is **incomplete**, for several reasons. Firstly, only a tiny fraction of organisms became fossils - most left no record at all. Secondly, only part of an organism (usually the bones and other hard tissues) is preserved in a fossil. **Palaeontologists** must work like detectives and use this incomplete evidence to build up a picture of the past.

Activity

Use the simplified fossil record diagram on the right to find out information about the 3 different animals. Record your information on the following page.

Simplified rock cross-section diagram showing fossil remains of sea-dwelling vertebrates

Present day

50 mya

100 mya

150 mya

200 mya

250 mya

mya = millions of years ago

Fossil A

What this organism may have looked like when alive

First appearance in fossil record: _____
Last appearance in fossil record: _____
Existed for: _____

Fossil B

What this organism may have looked like when alive

First appearance in fossil record: _____
Last appearance in fossil record: _____
Existed for: _____

Fossil C

What this organism may have looked like when alive

First appearance in fossil record: _____
Last appearance in fossil record: _____
Existed for: _____

Which organism lived closest to the present day?

_____

Which two organisms existed at the same time?

_____

Which organism went extinct first?

_____

Why might these organisms have gone extinct?

_____
_____
_____
_____