

It is extremely rare to find the complete fossilised remains of an organism. Normally predators eat a large part of the dead organism and scavengers may remove limbs and carry them great distances. Sometimes a creek, river or ocean may wash parts of the organism to another location entirely.

Bacteria normally break down what is left of an organism and recycle most of the nutrients back to the soil. Hard parts of organisms, such as bones, teeth and shells are more likely to remain and be preserved. What remains of the prehistoric organism, may be only a few bones. Chances of fossilisation are increased if the organism is completely covered by sediment soon after death.

Conditions that increase the chance of fossilisation are:

1. **Low temperatures** that reduce decay by bacteria. e.g. woolly mammoth in Siberia.
2. **Dry conditions** that reduce bacterial growth. e.g. mummified Thylacine (Tasmanian tiger) in the Nullabor Caves; mummified leopard seals on the ice sheets of Antarctica.
3. **Low oxygen** levels that again prevent bacterial growth. e.g. Sabre-tooth tigers in the tar pits of California; insects in amber.

Palaeontologists are scientists who study prehistoric life. This includes the structure and lifestyle of prehistoric organisms. It also includes their evolution and interactions with other organisms and their environment.

Trying to piece together the separate bones of an organism to make up an entire skeleton is something like trying to complete a very difficult jigsaw puzzle. At least with a jigsaw puzzle that comes in a box, the picture of the completed image is on the lid. That is, you know what you should end up with.

For palaeontologists, that is often not the case. Sometimes they may have only a femur (thigh bone) to work from, or a few ribs. Sometimes past reconstructions have proved to be incorrect when a more complete fossil skeleton of the species is unearthed.

In this activity, you are the paleontologist.

You have to reconstruct each of the prehistoric animals from the bones provided. In this case you are lucky as almost all of the bones are provided for you.

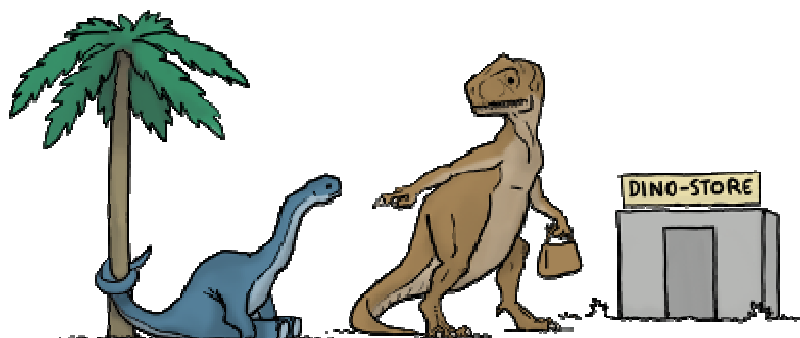
Simply print off, cut around the pieces, assemble, and paste onto your page. An A3 sheet of paper gives plenty of room to complete each puzzle.

Two options are provided.

Fossil A (reasonably easy)

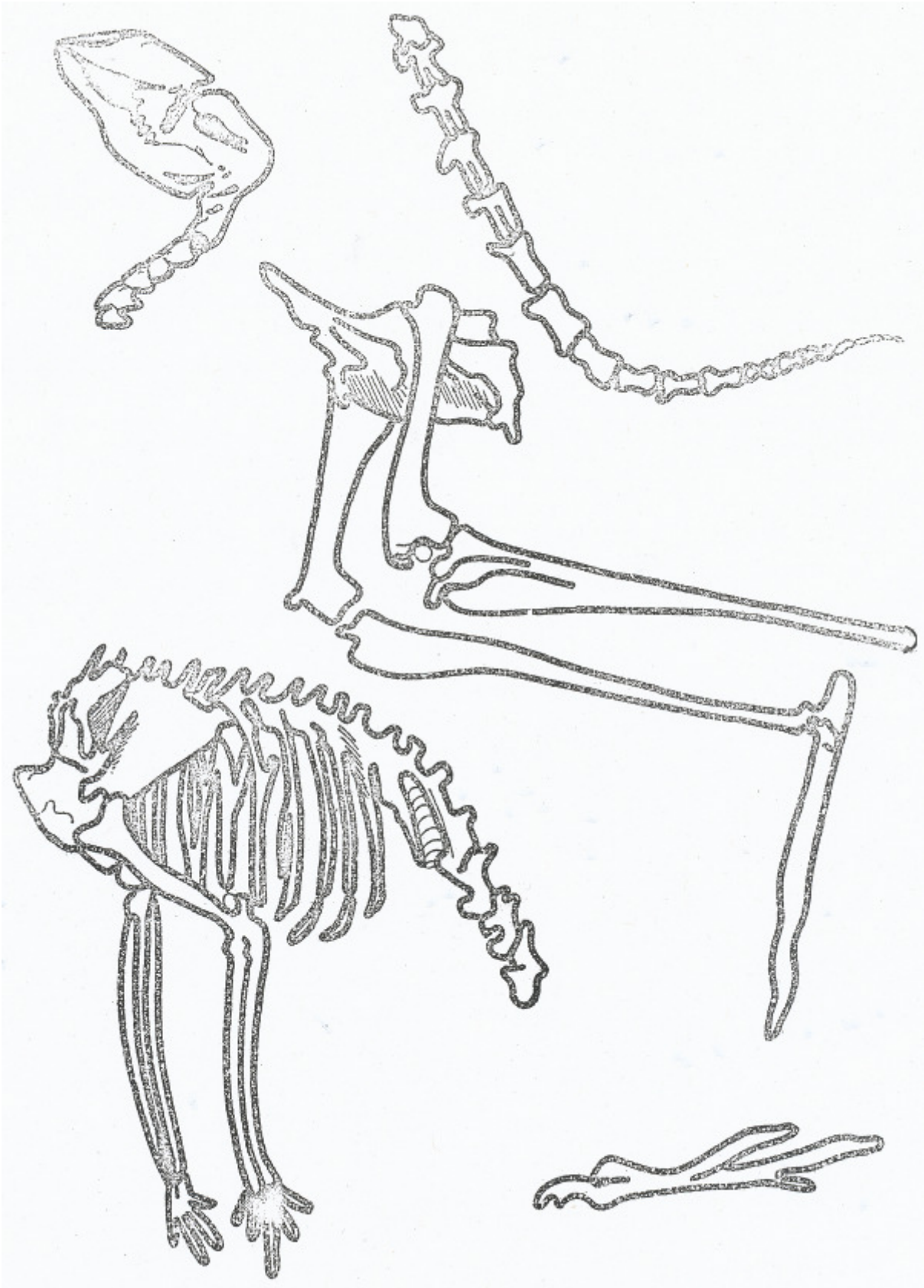
Fossil B (more difficult)

Good Luck!



Artist: J. T. Bauer. Image: Queensland Museum, Creative Commons licence BY-NC-ND.

Fossil A



Fossil B

