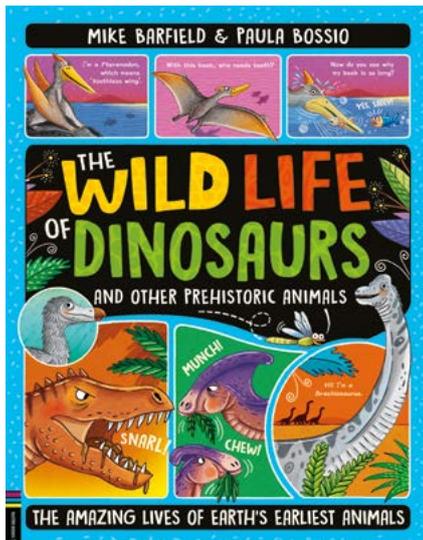


The wild life of dinosaurs and other prehistoric animals

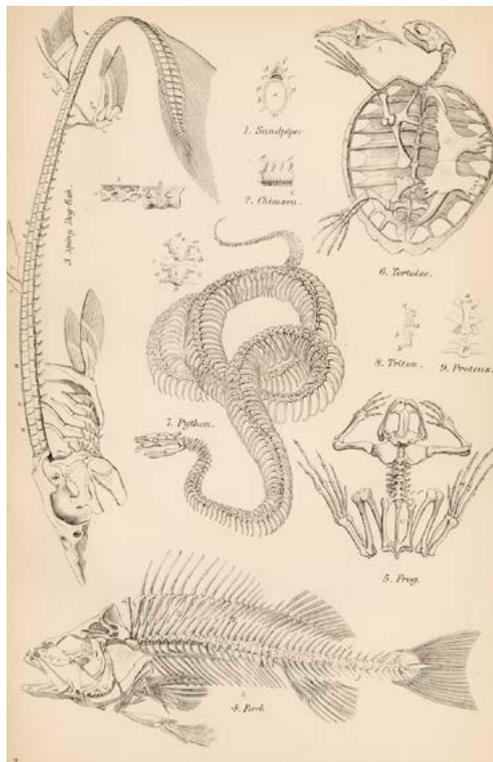
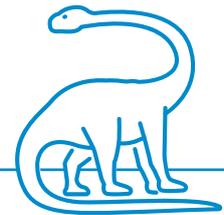
This is one of a series of activity sheets to use alongside the books which have been shortlisted for the Royal Society Young People's Book Prize 2025.



Each activity sheet contains ideas for activities to do with your pupils, provides information relating to careers, and has a maths focus to help pupil understand the importance of mathematics education across the curriculum.

Working with scientists

These investigations can be done as standalone activities or carried out as an in-depth sequence to develop pupils' disciplinary and substantive knowledge. The deeper learning and science capital development of your pupils could be made more memorable through collaboration with a scientist such as a zoologist, taxonomist or palaeontologist. You could do this by applying for a Royal Society Partnership Grant of up to £3,000. For more information, visit: royalsociety.org/partnership-grants.



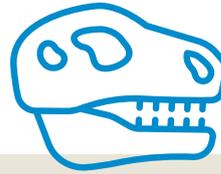
Classifying vertebrates

Scientists called taxonomists classify all living things into broad groups. This makes it easier for us to organise and learn about the many kinds of plants and animals on Earth.

Animals that have a backbone (spine) inside their body belong to the broad group called vertebrate animals. There are different groups of vertebrate animals with different features.

Ask pupils which groups of vertebrate animals they can name (clue: there are five groups).

Working in pairs, invite pupils to write a short description of the features shared by animals in each vertebrate group, for example all animals in the bird group have feathers. Next, they should compare their ideas for amphibian, bird, fish, mammal and reptile with the descriptions in the glossary at the back of the book. How accurate were pupils with their descriptions? What information do they need to add or change?



Prehistoric animal examples

Challenge pupils to find at least one example from the book for each vertebrate group. They could record their findings in a simple table like the one below.

Invite pupils to create a model of one of the prehistoric animals they have recorded in the table, using modelling dough and craft or recycled materials. They could challenge their classmates to identify which animal in the book they have created based on the features of their model.

Make a display of everyone's prehistoric animals and ask pupils to have a go at sorting them into different groups based on the observable features of the models.

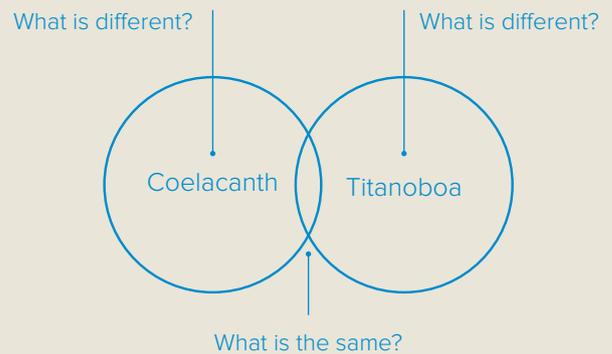
animal group	page number	animal name	features
amphibian	35	Diplocaulus	boomerang shaped skull, wide head
bird			
fish			
mammal			
reptile			

Comparing animals past and present

Pupils should think about the prehistoric animal they have chosen to model and then select an animal alive today from the same vertebrate group to compare it with. For example:

- Coelacanth (prehistoric fish: page 23) compared with a trout (fish living today)
- Titanoboa (prehistoric reptile: page 72) compared with an adder (reptile living today)

Ask pupils to research and compare features such as the animals' body parts and structure, skin covering, movement, diet and habitat. To complete the activity, invite pupils to share how the prehistoric and modern animals are similar, and how they may have changed over time to become different.



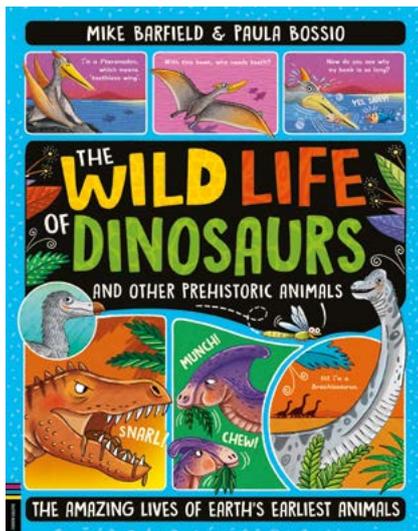
Career links

- **Ichnologists** study evidence of ancient life like footprints, burrows, trails, and fossilised poo. They find clues which tell them about how animals moved, if they lived alone or in groups, and what they used to eat. Ichnologists work outdoors at fossil sites and indoors studying evidence in detail. It's a good career choice for people who enjoy careful observation and discovering stories hidden in stone.
- **Taxonomists** are scientists who help us to name living things, including plants and animals that lived many years ago, and decide which groups they belong to. They look at how plants and animals are similar or different to each other. Taxonomists help us organise and understand all the life on Earth.
- **Palaeontologists** are scientists who study fossils to learn about animals and plants that lived long ago. They use clues from bones, footprints and rocks to discover what life was like in the past. Palaeontologists help us to understand how dinosaurs lived, moved and became extinct.



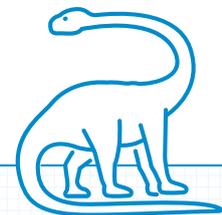
The wild life of dinosaurs and other prehistoric animals

This is one of a series of activity sheets to use alongside the books which have been shortlisted for the Royal Society Young People's Book Prize 2025.



Step into a world where dinosaurs hunt, fight, and survive just like real animals in *The wild life of dinosaurs and other prehistoric animals*. Packed with dramatic scenes, fascinating facts, and stunning illustrations, this book shows what prehistoric life was really like. If you've ever wondered how these incredible creatures lived day to day, this book has the answers.

“This book uses the best information available to bring some of those amazing animals back to life and tell their stories. So, sit down, strap in and set the time machine controls to ‘prehistoric’ – you’re in for a wild ride!”



Mathematics challenge: Big numbers

Use the book to make a list of amazing dinosaur facts which include big numbers, for example: a Titanosaur could weigh 76,000 kg and the Spinosaurus lived about 95,000,000 years ago.

Can you:

- read the numbers aloud?
- say or write the numbers in words?
- identify the value of each digit?
- order the full set of numbers you have chosen from smallest to biggest?

Make number cards from 0 – 9 and choose seven cards at random and arrange them to make the largest number possible. Think about which dinosaur your number could describe, e.g. how many years ago it lived or how much it weighed. Try this again with the smallest number you can make with your chosen cards.

As an extra challenge, you could invent your own dinosaur and create a fact card including its fictitious height, length, mass and time period using big numbers written both in digits and words. Can you round your numbers to the nearest ten thousand, hundred thousand, million or more?

Word families

Prefixes can be added to the beginning of a word, and suffixes can be added to the end of a word, to make new words in the same 'word family'. This helps us to understand new words by looking at the part we already know.

The word prehistoric begins with the prefix 'pre' which means 'before'. This helps us to understand that prehistoric means something about the past.

What other examples can you find in the book where you can use the prefix or suffix to help you to work out the meaning of the word?

Use the information in the table below to help. There are blank rows for you to add any other examples that you find from the book.

prefix or suffix	prefix/suffix meaning	example word	word meaning
dino-	terrible or awesome		
tri-	three		
pre-	before		
mega-	huge or great		
bronto-	thunder		
-orni	bird		
-pod	foot		
-saur	lizard or reptile		
-raptor	thief or predator		
-ceratops	horned face		



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Life lessons

Read about animals that have (or may not have) become extinct on page 90 of the book. Carry out some research to learn about other animals from the past that have become extinct. Try to find out why they became extinct.

You could also find out about endangered animals, which means animals living today that are in danger of becoming extinct. Choose an endangered animal, try to find out what threats it is facing and what might be done to help protect the animal from extinction.



Scientist profile

Dr. Jingmai O'Connor is a palaeontologist who works at the Field Museum in Chicago, USA. Her job is like being a detective for prehistoric life on Earth. Dr. O'Connor is an expert in theropods, which are dinosaurs closely related to birds. She looks at fossils and other evidence to suggest what flying dinosaurs and prehistoric birds were like, including how they flew, how their feathers worked and the structure of their bodies. Because of her excellent work and research, she helps other scientists understand how some dinosaurs evolved into the birds we see today.

