



Wingham Wildlife Park

Educational Itineraries

Dinosaurs and Fossils

History & Geography

Discover twenty two different species of dinosaur and synapsid from around the world in our Dinosaur Zoo. Our collection includes species which lived throughout the Cretaceous, Jurassic, Permian and Triassic periods.

- **Local Relevance**
 - One dinosaur in our collection that has particular local relevance is Iguanodon due to the Iguanodon fossils discovered in Maidstone in 1834.
 - Kent is ideal for fossil hunting, particularly for Palaeogene and early Cretaceous fossils. The county has an abundance of locations ideal for fossil hunting and our Dinosaur Zoo provides a map of sites where fossils have/can be discovered on our doorsteps.
- **Geochronology**
 - Use information provided about Geochronology to learn about eons, eras (including the Palaeozoic, Mesozoic and Cenozoic eras), periods and epochs and understand how particular fossils/dinosaurs fit into these terms and where they belong on a timeline.
- **History of Palaeontology**
 - Learn about the work of famous palaeontologists and the early history of palaeontology and geology, particularly the bone wars.
- **Extinction Theories**
 - Our Dinosaur Zoo provides an opportunity to explore a variety of extinction theories with information provided about six of the most catastrophic extinction events our planet has experienced including the Ordovician Silurian extinction caused by an ice age and the current Holocene extinction being caused by human impact.

Science

- **Evolution**

By comparing our dinosaurs to animals in the park children can recognise how they differ from one another and that living things change over time.

 - Information is available in our Dinosaur Zoo about feathered dinosaurs.
 - Comparisons between meat-eating theropods in our Dinosaur Zoo, such as Velociraptor and bird species around our park provide an opportunity for children to see first-hand that the slow and gradual process of evolution can have big effects.
 - Opportunity for children consider why it's important for living things to change over time. For example children can compare size differences between Deinonychus and our Cuban and West African crocodiles and the impact that may have had on one's

survival and the others extinction. To gain a greater understating of how animals adapt to their environment and why evolution is crucial to survival.

- Students can see for themselves how evolving in geographic isolation may affect an animals development by comparing similarities and differences between our ring-tailed lemurs and other primates at the park.
- **Fossils**
 - Our ethnography and natural history museum provides an opportunity for students to experience fossils first hand. Our collection includes a mammoth tooth, plant fossils and extinct fish and marine reptile fossils to name but a few, which will help students to understand living things that inhabited the Earth millions of years ago.
 - Control room contains replica items such as tyrannosaurus-rex claws, sabre-tooth tiger teeth and fossilised dinosaur eggs which can be used alongside our animals, animatronic dinosaurs and real fossils to compare the differences between living animals, animals which are dead and things which were never alive.

Reading

- **Statutory key stage 1 & 2 words**
 - Ten key stage 1 and another ten key stage 2 words relevant to the subject from the statutory word lists are on display the Dinosaur Zoo with a short explanation of their meaning. The reading word is used in the example given to develop children's understanding of the word itself and ability to correctly spell/read it.

Teaching outcomes lead to being able to...

- identify different dinosaur species.
- distinguish between carnivores and herbivores.
- understand the meaning of extinction and how such extinctions come about.
- comprehend the size of dinosaurs.
- understand key stage specific statutory words.

How to best use our zoo and other exhibits during a school visit:

This self-guided tour is one of a series of itineraries we have prepared for schools. The Dinosaurs and Fossils adaptation highlights the following exhibits and species.

1. Barbary Macaques
2. Ethnography and Natural History Museum
3. Vervet, Capuchin and Squirrel Monkey's
4. Reptile House
5. Tropical House
6. Lake
7. Aldabra Giant Tortoises
8. Dinosaur Zoo
9. Ring-tailed lemurs
10. Chimpanzee House

Some of the primates you may wish to compare to our lemurs to are macaques, vervets, capuchins and squirrel monkey's which are easily accessed from the entrance. From here walk around the corner to the Ethnography and Natural History Museum within the Education Centre to see our fossil collection alongside a number of other interesting items. Next, our Reptile House is home to a number of amphibians, invertebrates and reptiles including crocodiles and a variety of lizards which are ideal for comparing to our dinosaurs later in your trip. You may wish to visit our Tropical House from here which is home to a diverse range of free flying birds and a great opportunity to reflect on the evolution of birds from reptiles having just visited our Reptile House. From here you will pass a number of species including gibbons, tigers and mandrills as you head towards the lake where you will see a variety of birds, turtles and fish.

After you are finished at the lake please move on to see our Aldabra giant tortoises and next door to them our animatronic Dinosaur Zoo. You might consider dedicating some time to this area for pupils to make their comparisons, take down their key stage words and discuss theories of extinction and other information available etc. They may also like to uncover fossils in the sand and to enjoy other props available.

Once you are done here you will pass our macaws and spur-thighed tortoises en-route to our walk-through ring-tailed lemur enclosure which is open from 12-1pm and 2-3pm every day. You may also be interested in our daily lemur talk which takes place at 2.45 pm. As you make your way to the exit you can visit our troop of western chimpanzees, one of our closest relatives, in the chimpanzee House which is also home to a variety of other species including small primates, sloths and armadillos.

Some interesting facts and learning points:

- Birds evolved from small meat eating dinosaurs (maniraptoran theropods) such as velociraptor.
- Charles Darwin was involved in gaining protection for Aldabra tortoises in their natural range, the Aldabra Atoll.
- The iguanodon fossils discovered in Kent in 1834 provided key evidence of this dinosaurs size and bone structure and influenced reconstruction, making it an internationally significant find.
- Over 100 species of lemur live in Madagascar and they can be found nowhere else in the wild.
- Lemurs resemble the ancestral primates that roamed Africa along-side dinosaurs 70 million years ago
- Chimpanzees are one of our closest relatives, we both evolved from the same ancestor who lived 8- 6 million years ago.