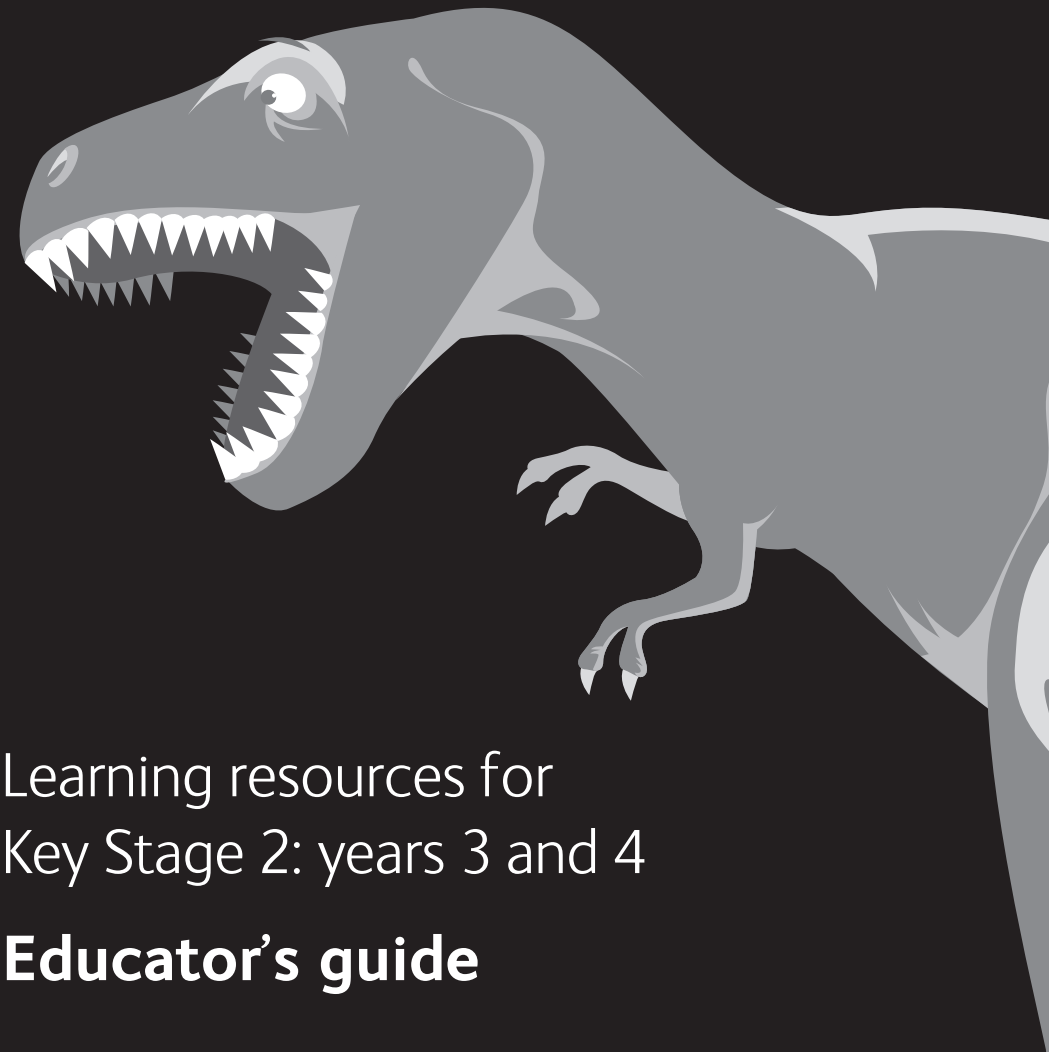


Dino Scientist



The Natural History Museum
Cromwell Road
London SW7 5BD
Tel 020 7942 5000

www.nhm.ac.uk

Learning resources for
Key Stage 2: years 3 and 4

Educator's guide

The Dino-Scientist activities are designed to develop the scientific skills of making observations, evaluating evidence and drawing conclusions, while encouraging pupils to use and extend their scientific knowledge. Skills and knowledge are developed through role play, with pupils encouraged to dress up as scientists.

The activities support classroom work carried out under the following science themes:

- Ideas and evidence
- Investigative skills
- Considering evidence and evaluating
- Teeth and eating
- Bones and movement
- Dinosaurs

National Curriculum links from September 2014

This activity's content falls within the following statements, but does not necessarily support the breadth of content to which the statement refers.

Science

Lower Key Stage 2 – Years 3 and 4

Working scientifically

- gathering, recording, classifying and presenting data in a variety of ways to help in answering questions
- recording findings using simple scientific language, drawings, labelled diagrams, keys, bar charts, and tables
- reporting on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions
- using straightforward scientific evidence to answer questions or to support their findings

Year 4 programme of study

Animals, including humans

Pupils should be taught to:

- identify the different types of teeth in humans and their simple functions

Pre-visit learning

Before visiting the Museum, prepare your pupils for their experience with these talks and classroom activities.

1. What do scientists do?

Explain to your pupils that they are going to become scientists for the day at the Natural History Museum.

Use these guiding questions to create discussion:

- What do scientists do?
- What science have you already done in the classroom?
- What skills do you think scientists use?

Talk about the equipment they will have and the tasks they will be doing.

Useful vocabulary for discussion:

evidence, conclusion, deduction, investigate, recording, information, examine

2. What are fossils?

Explain that there are many scientists working at the Museum, examining fossil evidence to work out how ancient animals might have lived.

Explain that fossils are the remains of real animals or plants that lived a long time ago, and that fossils give us clues about what these animals were like.

Useful vocabulary for discussion:

bones, skeleton, hard, dead animal, extinct, specimen, trace, organic

3. How and what do animals eat?

Explain the different shapes of teeth and how different shapes makes them useful for different purposes.

Use these guiding questions to create discussion:

- What are sharp teeth used for?
- What are bumpy or flat teeth used for?
- What would an animal with sharp teeth eat?
- What would an animal with bumpy or flat teeth eat?

Useful vocabulary for discussion:

feeding, diet, cutting, ripping, meat, chewing, plants, fish

4. How did animals move and where did they live?

Explain that the fossil evidence will give clues about how an animal moved and what kind of habitat it once lived in.

Tell your pupils they will be working as scientists, looking for fossil clues and using these to discover where an ancient animal lived, what it ate and how it moved.

Use these guiding questions to create discussion:

- How do animals living on land move around?
- How do animals living in water move around?
- How do animals with two or four legs move around?

Useful vocabulary for discussion:

habitat, sea, ocean, land, walk, swim, land, water, sprawling, quadruped, bipedal, fast, slow

Planning for your trip

Divide your class into small groups of six to eight pupils (maximum 10 pupils per group). Each group will need to be accompanied by at least one adult.

You will need to bring this educator's guide with you, and pencils for your pupils to use.

On arrival

Collect the Dino-Scientist kit from the Museum's School Reception. The kit contains a logbook, clipboard and a lab coat for each pupil.

Post-visit activities

When you get back to the classroom, consolidate your pupils' learning with these activities.

1. Interact with dinosaurs

Discover more about dinosaurs through interactive games on the Museum's website at www.nhm.ac.uk/kids-only/dinosaurs/index.html

2. Meet a palaeontologist

A palaeontologist is a person who studies fossils. Meet a Museum palaeontologist and find out how to become one at www.nhm.ac.uk/kids-only/ologist/palaeontologist

Dino-Scientists – guidance notes for educators and accompanying adults.

Challenge 1



Common name:	<i>Ichthyosaurus</i> (Ich-thi-o-saur-us)
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Scientific name:	<i>Temnodontosaurus platydon</i> (Tem-no-don-to-saur-us pla-ti-don)
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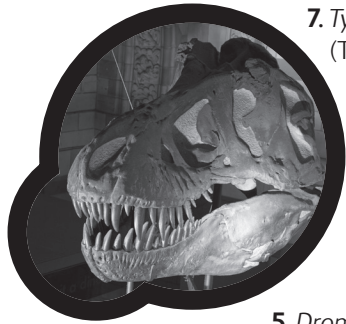
Its common name means 'fish-lizard' in Ancient Greek.

Challenge 3

What I want to find out:	Evidence I can see:	My conclusions:
1. What it ate.	Pointed, sharp teeth, useful for cutting, ripping or catching fish.	It ate other animals that lived in water, such as fish, octopuses and animals with shells, like ammonites
2. How it moved around.	Paddle-shaped limbs, useful for swimming and moving through water.	It moved by propelling itself through water with its paddle-shaped limbs.
3. Where it lived.	Paddle-shaped limbs, useful for swimming and moving through water.	It lived in the ocean, near surface.

Challenge 5

Carnivorous dinosaurs



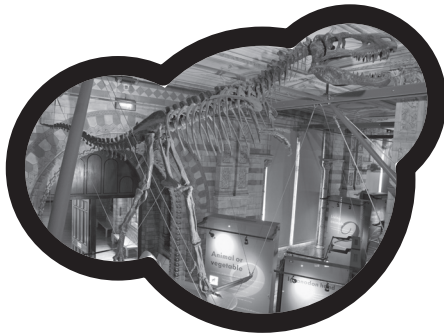
7. *Tyrannosaurus*
(Tie-RAN-oh-saw-russ)



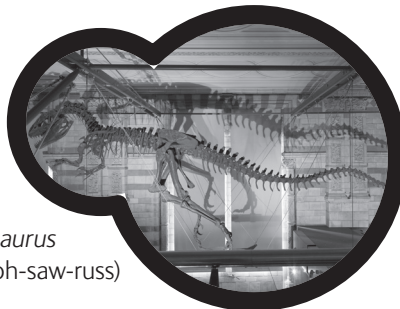
5. *Dromaeosaurus*
(DROM-ee-oh-saw-russ)



4. *Gallimimus*
(gal-lee-MEEM-us)

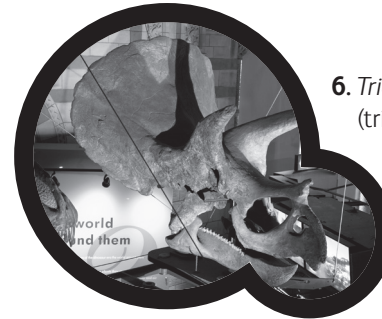


2. *Albertosaurus*
(al-BERT-oh-saw-russ)



1. *Allosaurus*
(AL-oh-saw-russ)

Herbivorous dinosaurs



6. *Triceratops*
(tri-SERRA-tops)



3. *Tuojiangosaurus*
(too-YANG-oh-sore-us)

Challenge 6

The mystery dinosaur is:

Dromaeosaurus.....