





**Explore dinosaurs and how they were adapted to their way of life.**

|   |  |
|---|--|
| <b>Gallery visited</b><br>(please see accompanying map) |  Dinosaurs  |
| <b>Suitable for</b>                                     |  Key Stage 2 (ages seven to 11)   |
| <b>Curriculum links</b>                                 | QCA Science Unit 3A: Teeth and Eating<br>QCA Science Unit 4A: Moving and Growing<br>QCA Science Unit 4B: Habitats<br>QCA Science Unit 6A: Interdependence and Adaptation<br>NC Science: Life Processes & Other Animals 2a, 2e, Variation 4a, Living Things in their Environment 5b, 5c, 5d |
| <b>Example page</b>                                     | <a href="http://www.nhm.ac.uk/dinosaurs-ks2">www.nhm.ac.uk/dinosaurs-ks2</a>   |
| <b>Pre-visit preparation</b>                            | <ul style="list-style-type: none"> <li>• vocabulary: imaginary, adaptations, carnivore, herbivore, attack, defence, key</li> <li>• an understanding of adaptation</li> <li>• be able to construct a basic key based on observable features</li> </ul>                                      |





# Explore and Discover...

## Dinosaurs

### Take the comparisons test

#### Activities within the guide

The children will be asked to complete six challenges:

|   | Challenge                       | Description   |
|---|---------------------------------|---|
|    | 1. Dinosaur design challenge    | Design your own adapted dinosaur  |
|    | 2. <i>T. rex</i> challenge      | Fill in the notes while imagining you're looking at a real, live <i>T. rex</i>  |
|    | 3. What am I challenge          | Create clues for a partner to guess a dinosaur                                  |
|  | 4. Meat or plants award         | Choose favourite carnivorous and herbivorous dinosaurs and look for adaptations |
|  | 5. Attack and defence challenge | Fill in Did-u-Know? facts for a new magazine                                    |
|  | 6. Dinosaur key challenge       | Fill in the key and look for similarities and differences                       |

These can be done in any order within the gallery. Depending on how many challenges the children complete, they can reach these levels:

- researcher (two challenges completed)
- scientist (four challenges completed)
- professor (six challenges completed)

#### Certificates

On return to school, certificates (available at the end of this document) can be printed out and awarded, depending on the number of challenges completed.

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#### Techniques

There are a range of techniques used within the guide. To complete the challenge, children will be required to:

- make choices based on observation
- write short answers
- choose appropriate descriptive vocabulary
- make decisions about an animal's diet based on physical features
- make sketches
- discuss answers with a partner
- extract information from exhibits and their information boards
- use observation skills to complete a key

#### Follow-up activities

- **Award ceremony**

Print out certificates and have an award ceremony.

- **Literacy: Speaking & Listening**

Discuss the experiences had at the Museum and the challenges that were undertaken.

- **Science**

Create some more keys to identify a range of different dinosaurs.

Use model dinosaurs as well as pictures.

- **Science**

Compare the teeth of carnivorous and herbivorous dinosaurs. How were they different? How similar or different are these teeth to modern day carnivores and herbivores?

- **Literacy**

Create some newspaper reports about dinosaur sightings or discoveries in your area.

- **Numeracy**

Gather some dinosaur number facts together to look at large numbers.

How tall was a *T. rex* in centimetres?

#### Suggested answers for challenges



##### Dinosaur design challenge

**Question 2:** Answers may vary but could include the following: Arms of a *Massospondylus* so it can hook branches, dig or fight. Legs of an *Allosaurus* so it can run fast. Head of a *Gallimimus* with a large eye so it can see its food. Children may choose a dinosaur tail; e.g. tail of a *Tuojiangosaurus* so it can defend itself. *Tuojiangosaurus* had a tail with two pairs of spikes at the end.

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#### **T. rex challenge**

**Question 2:** Possible missing words are: it's only a youngster, about three and a half metres tall. An adult would be about five metres tall. The legs are muscular / big / large / long but the arms are tiny / short / have two fingers. You should see its tail / eye and teeth / nostrils. I'm pretty sure this animal eats meat. Seeing a *T. rex* has made me feel (own choice).

**Question 3:** Interesting facts may include:

- had sharp eyes and an excellent sense of smell
- lived in a warm, wooded environment
- it was one of the last dinosaurs to roam the Earth 67–65 million years ago
- its arms couldn't reach its mouth
- scientists aren't sure if it was a hunter or a scavenger
- *T. rex* was longer and taller than a double decker bus
- *T. rex* had a bite eight times more powerful than a lion's



#### **What am I challenge**

The clues will depend on the dinosaurs chosen. Pupils may include facts about nests, hunting, diet, behaviour, shape and size.



#### **Meat or plants award**

Meat-eating dinosaurs include *Deinocheirus* – claws and long arms, *Albertosaurus* – small, two fingered forelimbs and sharp teeth, *Dromaeosaurus* – tiny and agile with slashing claws on back feet, *Tyrannosaurus rex* – large teeth and powerful jaws. Plant-eating dinosaurs include *Triceratops* – sharp beak and scissor like teeth, *Camarasaurus* – tall with pillar like legs, *Iguanodon* – walked on hind legs with a thumb spike that may have been used when foraging for food.



#### **Attack and defence challenge**

**Question 2:** There are many facts in this part of the gallery. They may include talking about claws, horns, teeth, clubs and skulls. For example, *Euoplocephalus* had a huge bony tail club. *Iguanodon* used its thumb spike to jab attackers.



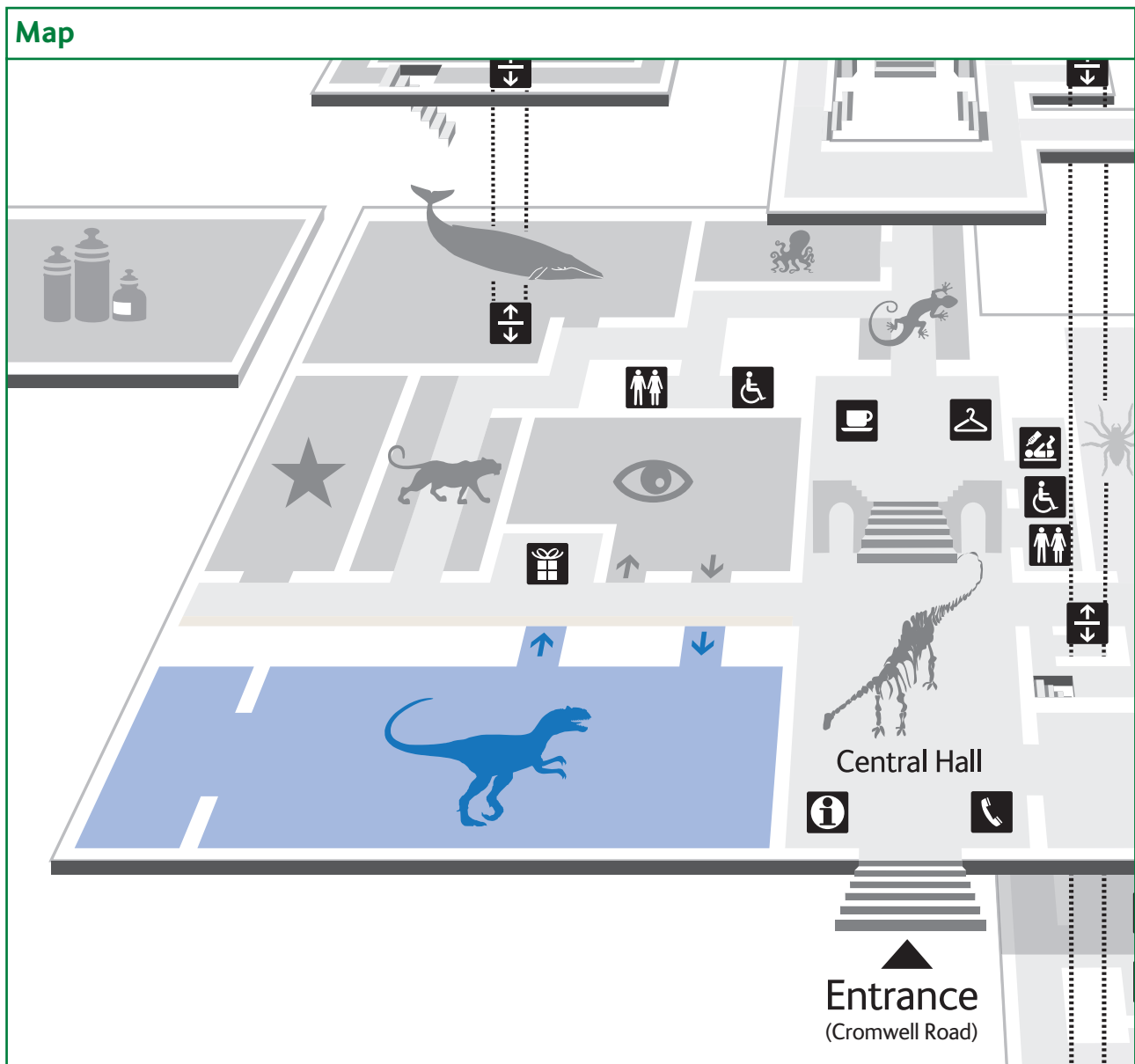
#### **Dinosaur key challenge**

**Question 2:** All the boxes should be ticked.

On the key, the question may vary, but the most obvious is 'Does it have bony plates on its back?' The dinosaur that doesn't have these plates is *Diplodocus*. For dinosaurs that walk on two legs, *Tyrannosaurus rex* has two claws on its front feet, *Gallimimus* is the remaining answer.

**Question 3:** Children may choose similarities with regard to the dinosaurs' stance, teeth, bony plates and horns.

Explore and Discover...  
Dinosaurs  
**Take the comparisons test**



A larger, full-colour version of this map showing the whole Museum is available at reception when you arrive.

# Certificate

This is to certify that

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became a

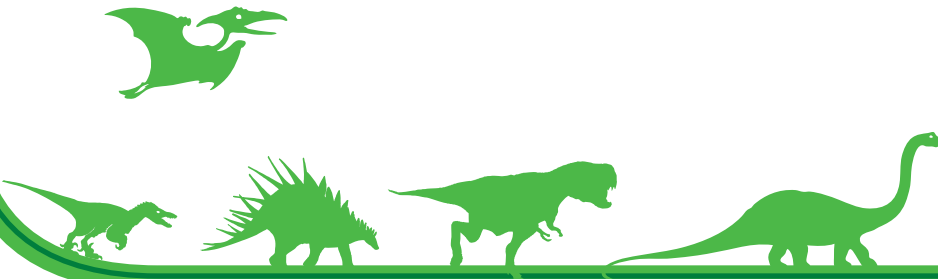
# researcher

in the Explore and Discover... Dinosaurs challenge

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Teacher's name

Date



# Certificate

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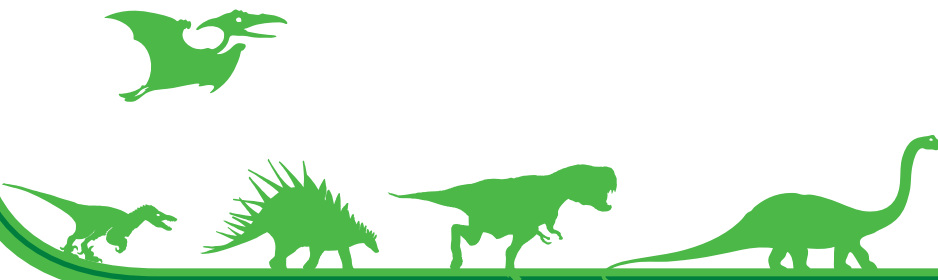
# scientist

in the Explore and Discover... Dinosaurs challenge

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Teacher's name

Date



# Certificate

This is to certify that

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became a

# professor

in the Explore and Discover... Dinosaurs challenge

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Teacher's name

Date

