

## Explore and Discover...

### Food chains and keys

## Join the feeding frenzy



**Identify predator and prey and the food eaten by different animals and link this information into a food chain.**

**Use keys to identify animals.**

#### Galleries visited

(please see accompanying map)




Mammals



Mammals (blue whale)

#### Suitable for

 Key Stage 2 (ages seven to 11)

#### Curriculum links

QCA Science Unit 4B: Habitats

QCA Science Unit 3A: Teeth & Eating

NC Science: Life Processes & Living Things 4a, 5d, 5e

#### Example page

[www.nhm.ac.uk/foodchains-ks2](http://www.nhm.ac.uk/foodchains-ks2)

#### Pre-visit preparation

- vocabulary: predator, prey, camouflage, hunt, adapted, adaptation, food chain, key
- an understanding of predator/prey relationships
- able to construct simple food chains, using arrows to show energy flow
- to have experience of using and constructing simple keys













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#### Activities within the guide

The children will be asked to complete six challenges

	Challenge	Location	Description
	1. Prey survival challenge		Learn about artiodactyls and their adaptations
	2. Complete a key challenge		Use exhibits in the gallery to complete two identification keys
	3. Mammal interview challenge		Choose a predator... and then interview it
	4. Food chain challenge		Find out what wild dogs eat and create some food chains
	5. Marvellous menus challenge		Use information in the gallery to create a menu fit for a wild boar and a caribou
	6. Predator power challenge		Choose which animal should win a predator power award

These can be done in any order within the two galleries. 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:

- extract information from displays
- make choices based on observation
- write short answers
- choose appropriate descriptive vocabulary
- make decisions about an animal's adaptations based on physical features
- make sketches
- discuss answers with a partner
- extract information from exhibits and their information boards
- use the gallery to find examples of certain adaptations
- use their imagination to create an exciting menu

#### 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.

- **Literacy – Menus**

Create some exciting menu cards based on the ideas from the Museum. Extend this menu to attract other animals to the restaurant. Use persuasive language to make the food on offer sound as attractive as possible. Design adverts to promote the restaurant.

- **Literacy – Interviews**

Further extend the interview that was started in the Museum. Act out and record these interviews for others to share.

- **Science**

Make keys to identify some of the other animals in the galleries.

- **Artiodactyl-Art/ICT**

Create some montage artwork based around the many ways artiodactyls are adapted to their ways of life. Cut and paste images from the Internet. Select some images to enlarge. Use different media to explore camouflage or other adaptations.

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#### Suggested answers for challenges



##### Prey survival challenge

- Question 2:** Students may choose any artiodactyl to sketch, including a deer, hippo, antelope, buffalo, pig, sheep, goat, gazelle, hog, boar, bison, giraffe, camel, impala or yak. Responses to how their chosen animal keeps safe will vary, but may include:
- I keep safe by having eyes on the side of my head so I can see predators coming
  - I keep safe by having a camouflaged coat so I can blend in with my surroundings
  - I keep safe by having good senses (so I can detect predators), being small (so I can escape through dense forest undergrowth), having small feet (so I can escape on steep slopes), having horns (for protection if I'm attacked)



##### Complete a key challenge

- Question 2:** Fur and antlers = red deer, fur and no antlers = domestic sheep, no fur and curly tusks = babirusa, no fur and no tusks = hippo.
- Question 3:** All four animals can be seen.
- Question 4:** Fin, black and white = killer whale, fin, not black and white = bottlenosed dolphin. The second question may vary, but the most obvious is does it have a (long) tusk. Is it speckled (or speckled with grey) is also possible. The remaining answer is white whale.



##### Mammal interview challenge

- Question 3:** There are many mammals to choose from, but responses may look like the following:
- Lion** Favourite food – antelope, wildebeest, zebra.  
Get food by hunting as a team.  
One lioness drives prey towards another waiting in ambush.  
Q: Who has the first choice after the prey is killed?  
A: The males.
- Polar bear** Favourite food – seals.  
Get food – swim to catch it.  
Q: Where do you spend your winter?  
A: In deep dens, under the snow and ice.



##### Food chain challenge

- Question 2:** Cape hunting dog – wildebeest, antelope, jackal – fruit, reptiles, birds (also eats invertebrates and small mammals, so students may also draw lines to insects and rabbits), maned wolf – fruit, reptiles, birds, rabbits, insects, fish, Fennec fox – plants, birds, insects
- Question 3:** Grass → antelope → Cape hunting dog  
Plants/leaves → insects → armadillo → maned wolf  
Examples of the children's food chains will vary.

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#### **Marvellous menus challenge**

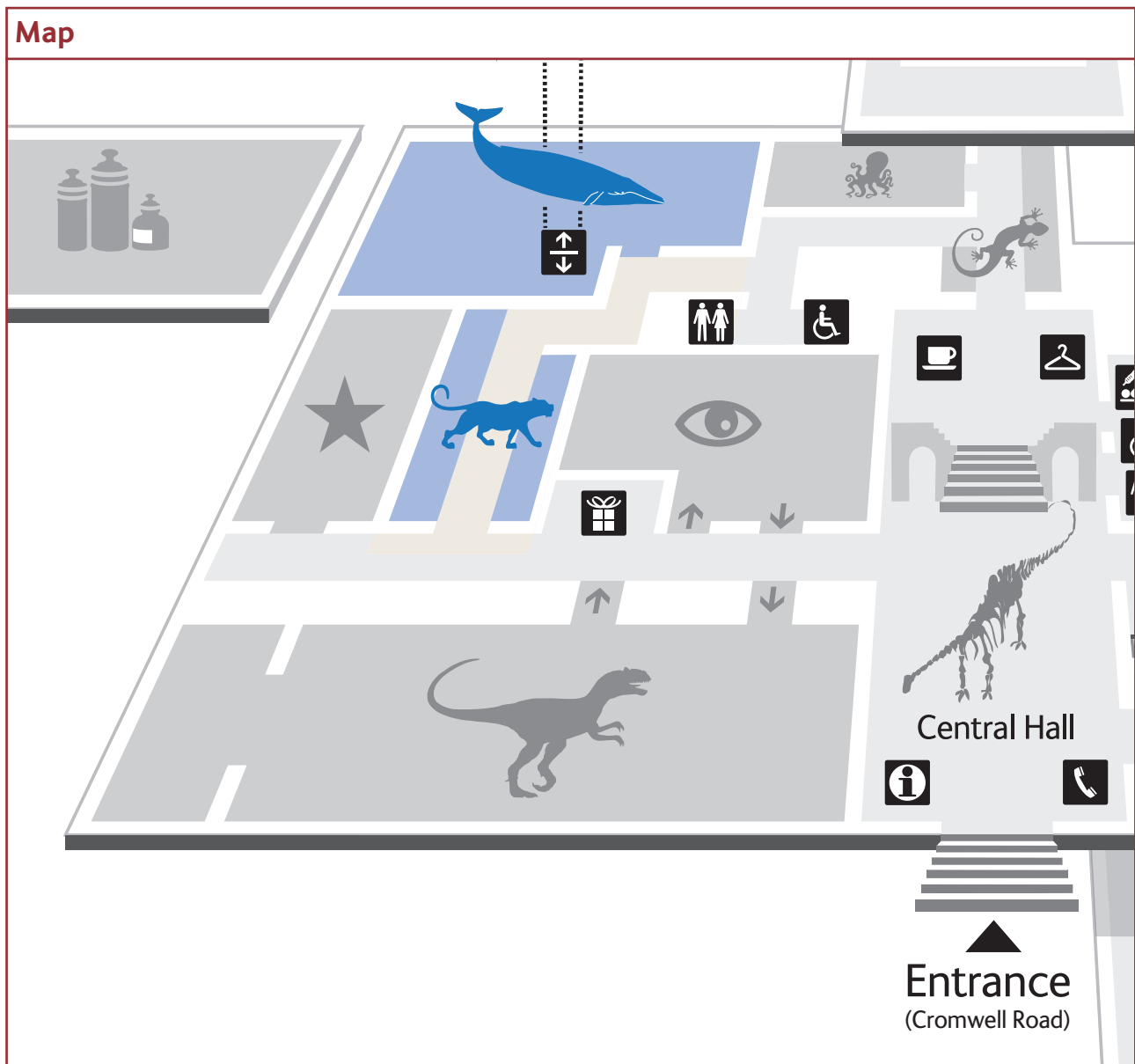
The wild boar and caribou are in the room with the blue whale. This challenge provides students with an opportunity to be creative in how they write the menus. Wild boar eat nuts, worms, eggs, mice and birds. Caribou/reindeer eat lichens, sedges, fungi, grasses, herbs and willow.



#### **Predator power challenge**

There are many predators that children may choose. Possibilities include the Cape hunting dog, maned wolf, polar bear, jaguar, snow leopard, lion, Scottish wild cat and cheetah. Reasons for choosing the predator will also vary, but could include features such as teeth, claws, speed and camouflage.

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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

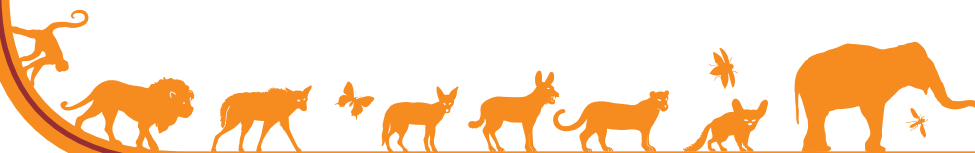
# researcher

in the Explore and Discover... Food chains challenge

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Teacher's name

Date



# Certificate

This is to certify that

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became a

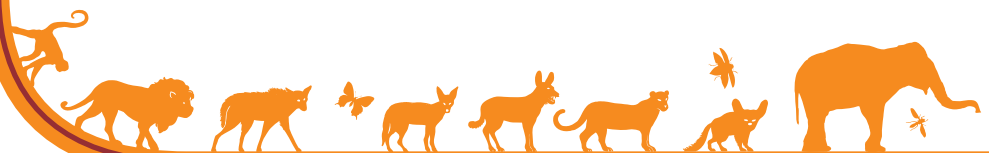
# scientist

in the Explore and Discover... Food chains 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... Food chains challenge

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Teacher's name

Date

