

ADAPTATIONS FOR COPING WITH

European Bison



THIS TEACHERS' SHEET; aims to let you know what is involved in your chosen activity so that you can prepare your class for the day and help them to get as much out of their visit as possible. Trips and visits away from school are expensive, but if planned carefully, a visit to Park can provide a basis for a wide range of activities across all aspects of learning. Linking your visit to activities at school, before and afterwards, will really strengthen the learning experience for your class and will make the most of the time and money spent during your visit to Highland Wildlife Park.

PRIOR TO YOUR VISIT; teachers can visit the Park free of charge to help with lesson planning and to make sure you know the layout and facilities available at the Park. Please contact the education officer on [01540 651981](tel:01540651981) to arrange your free visit.

If you require any help or more information prior to your visit also contact the Education Officer on hwpeducation@rzs.org.uk.

Remember that a visit to the Highland Wildlife Park can offer a great learning platform for many different subjects and topics such as English, Art and Current affairs—be flexible and imaginative in your approach to your visit and how you use your visit to develop the key capabilities in your class.

DURING YOUR VISIT: to the Park your class will have the chance to see many animals that are specially adapted to live in cold conditions. They will also get the chance to look at our bio-facts, which give them a hands on insight into how animals' bodies are well designed for their environment. There will be the chance to ask questions as well as lots of interesting facts, stories and explanations from our Education Officers.

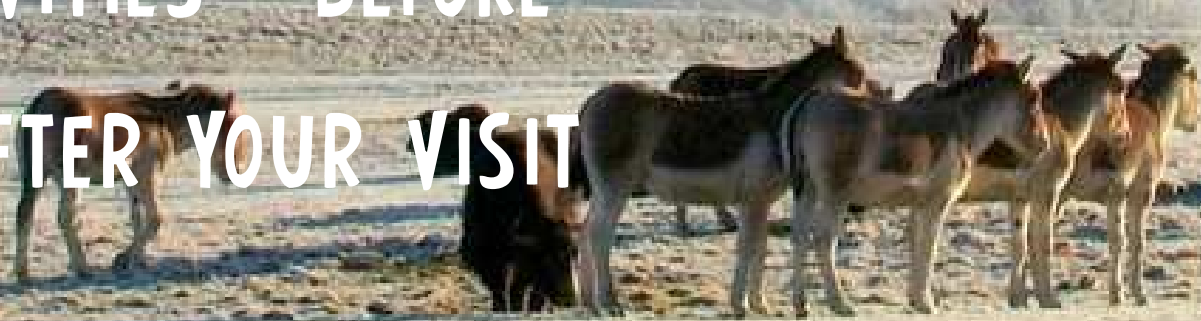
To help you get the most from your visit - encourage your class to think about where the animals at the Park come from and what the conditions are like there. Perhaps do some research on Mountain and Tundra biomes or look at mountain wildlife in Britain and compare our native mountain animals (e.g. Mountain hare and Ptarmigan) with the animals in the Park. Do they have the same adaptations or have they evolved differently to cope with cold weather?

ALL ANIMALS ARE ADAPTED TO COPE WITH THEIR ENVIRONMENT, WHICHEVER HABITAT THEY LIVE IN. ADAPTATIONS ARE SPECIAL CHARACTERISTICS OR MECHANISMS WHICH HELP ORGANISMS TO BE SUITED TO THEIR ENVIRONMENT. WHAT ARE THEY?

Polar Bear and Cub



ACTIVITIES - BEFORE OR AFTER YOUR VISIT



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OTHER TOPICS WHICH MAY BE OF INTEREST

- What are peoples perceptions of predators?
- What is the point of zoos?
- Zoos and conservation
- Animals at risk
- Evolution
- Animal observation and enrichment
- Polar bear evolution and adaption
- Re-introduction
- Wildlife crime
- Enclosure design

THINKING ABOUT PEOPLE WHO LIVE IN COLD PLACES

ENGLISH/ LANGUAGE

Activities with an Inuit story from a German education website.

http://www.westermann.de/download/grundschule/gs_englisch/interkulturell/animals4.pdf

Write poems using descriptive words for snow and cold. Put yourself into the position of being one of the animals at the Park. Try to make the reader feel really cold!

<http://www.elements.nb.ca/kids/snow/snoword.htm>—Inuit words for snow

For more info on Inuit way of life to inspire writing see;

http://www.virtualmuseum.ca/Exhibitions/Inuit_Haida/english.html

PHYSICAL EDUCATION / GAMES

Traditional Inuit games (not all are suitable, but some could be tried in PE)

<http://www.athropolis.com/news-upload/master/11-frames.htm>

Set up links with a class in a school in the Arctic circle by writing letters about your day and your life. Ask them questions about what life is like where they live.

CULTURE AND LIFE

Look at newspaper / online news stories about how Britain copes with snow and cold weather e.g. 2009/10. How many days off school did the children in your class have? How do people in places much colder than Britain cope?

<http://www.guardian.co.uk/uk/2010/jan/06/uk-snow-transport-schools>

Look at an Inuit newspaper—what is happening?

<http://www.nunatsiaqonline.ca/>

THINKING ABOUT ANIMALS IN COLD PLACES

Climate change—what might happen to the cold places in the world if global warming happens as predicted. How will this affect the animals that live there? See these articles;

<http://www.timesonline.co.uk/tol/news/uk/article767459.ece>

<http://www.guardian.co.uk/environment/2008/jul/15/climatechange.wildlife>

Each child can pick an animal that lives in a cold environment and draw a diagram with labels showing how that animal is adapted to survive the cold.



Japanese
Macaque

What are the difference in how animals and humans will cope with the change in their environment?

Climate change
Global warming
Adaptation
Insulation
Camouflage
Sourcing food

Things to encourage your class to think about

BEFORE YOUR VISIT:

How do we cope with cold conditions?

Staying warm e.g. stay indoors, find shelter, thick duvets, warm jackets, thick socks, hats—**insulation**

Getting around—snow tyres, 4x4, snow shoes, skis, shoes with good grips (for ice)

Finding food—Go to the super market. Or even let the supermarket deliver to us!

How do animals cope with cold conditions?

Staying warm e.g. find shelter, in forests, burrows. Thick fur with undercoats, fur on feet, furry noses, hollow hairs, black skin absorbs heat from the sun. Down feathers. Small ears, lots of fat / blubber.

Getting around—wide feet to stop sinking in the snow.

Finding food—use noses to plough through snow, good sense of smell, **camouflage** to help ambush prey.