



Government of South Australia

Department for Education and
Child Development

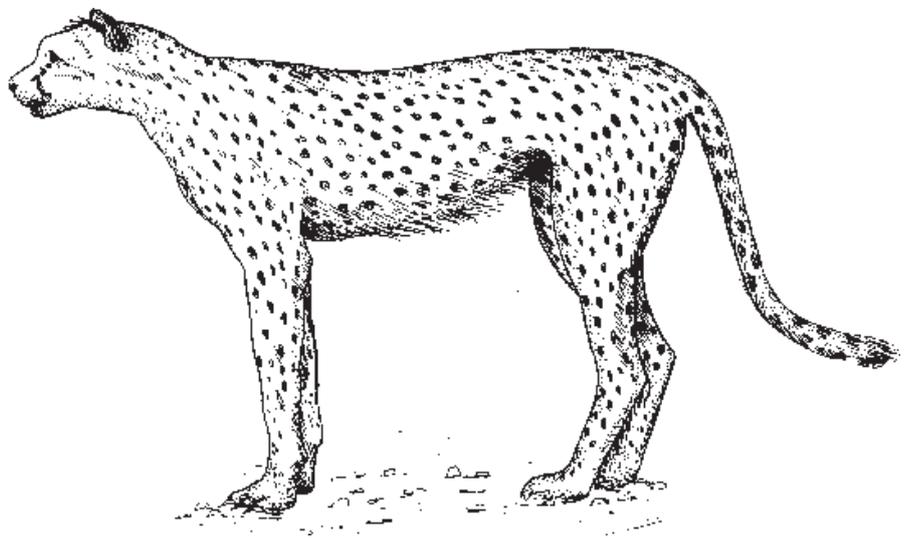


World Mammals – Year 5

Features and Adaptations

This program for schools is made possible through the partnership between the Department for Education and Child Development and the South Australian Museum. It is part of Outreach Education, a team of DECD educators seconded to public organisations.

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South Australian Museum Education Program

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Visiting the museum

Student expectations

We would like you, and all our visitors, to enjoy visiting the museum.

- Please stay with your group.
- Walk safely around the exhibitions to see all the best parts.
- Share the space with other visitors.
- Talking is an important part of learning. Please remember to use a quiet voice.
- The museum glass cases can get dirty or scratched. Please enjoy looking without touching.
- Please use the stairs and avoid the lifts. (They are slow and are needed by people who can't use the stairs.)
- Help keep the museum clean. Please eat and drink outside on the lawns.



Visiting the museum

Student expectations

Bookings are essential for all school visits to the museum.

Please supervise your groups of learners at all times. If your visit involves visiting more than one gallery, divide your class into small supervised groups. Respect the needs of other classes that have booked particular galleries. **Parents must specifically consent to students under 18 participating in activities involving indirect supervision.**

When you arrive please let the staff at the front desk know. If the weather is fine, your students can enjoy the outside lawn area while they wait.

Do not use clipboards with metal backings and clips. For your convenience and for the safety of our exhibits, cardboard backings are available at the front desk.

The coffee shop and the museum shop do not cater for large groups. Small groups can visit, with adult supervision. Bags must not be taken into either shop.

Only students with special needs should use the lifts. (The number of students in the museum would cause excessive delays for people who really need lifts.)

Unfortunately the museum has limited capacity to store bags. A large crate or two for lunches is easier to keep secure.

Supervisors' bags must be left at the reception desk, or be inspected and tagged by the security officers.

Program Aims

This program has been designed to introduce students to mammals from other countries. Students will focus on animal adaptations to particular environments.

Curriculum Links

Living things have structural features and adaptations that help them to survive in their environment.

[Australian Curriculum, Biology, Year 5]

Teaching Strategies

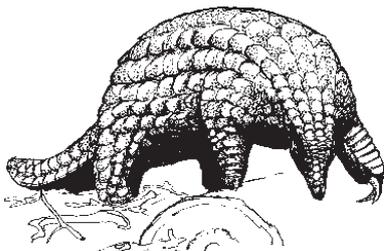
The gallery will be booked for your class for an hour (or one ½ hours if an Education Officer is taking your class). Students will need at least ten minutes to explore on their own before starting more directed activities. The questions in this booklet can be reproduced for students to answer in the gallery, but there are many other activities that students can undertake. Such activities might include:

Asking the students to locate animals they have read about in stories. Are the real animals like those in the books? What are the similarities? What are the differences?

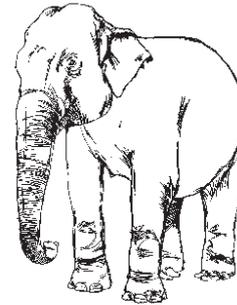
Asking students to locate and name animals they have never seen before.

Background

The following pages give information about some of the mammals your students will encounter.



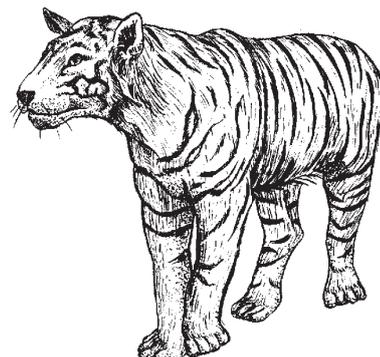
The Indian Elephant is used as a work animal. In the wild these animals use their trunks for a variety of purposes: pulling down vegetation, clearing ‘elephant roads’ through forests, digging water holes during dry seasons, cleaning and bathing. Elephants even use their trunks as snorkels when swimming.



Flying Lemurs sleep hanging upside down by all fours during the day. At night they climb high up into the trees and glide from one tree to another in search of leaves, buds and seed pods. Lemurs cannot fly, but are very proficient gliders, losing altitude with each glide.



The Tiger is the largest of the cats and is an endangered species. It is a solitary hunter, relying on its camouflage to stalk and ambush its prey. The tiger’s striped markings serve to break up its outline as it stalks its prey in long grass.



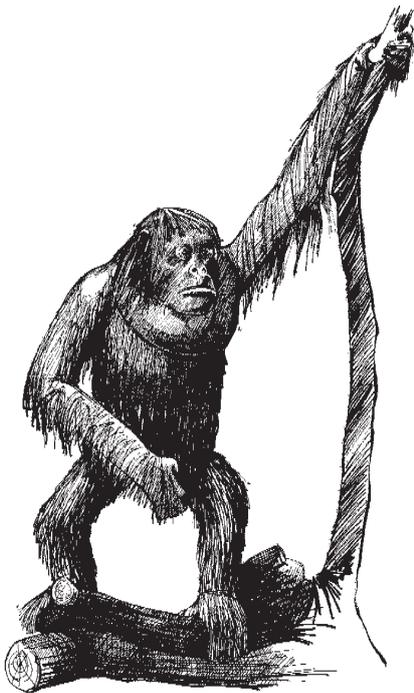


The Gibbon is extremely well adapted to life in the trees. It uses its long arms to swing from branch to branch. Particularly flexible branches can act as spring-boards, allowing the gibbon to swing over gaps of up to 12 m. Frontally set eyes aid in judging distances accurately. The gibbon eats mainly fruit.

The Sun Bear is the smallest member of the bear family. It sleeps most of the day in rough nests in trees. It is an excellent climber. The bear is an omnivore but is particularly partial to fruit and honey. It uses its powerful claws to tear open bees' nests and its long tongue to reach the honey.

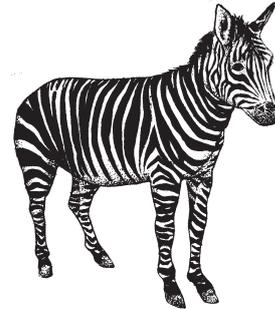


Orang-utans are gentle, tree dwelling primates. These animals feed mainly on fruit and live in small family groups. Orang-utans are active during the day, clambering unhurriedly among the branches. At night they sleep on platforms made with sticks and vines.



AFRICA

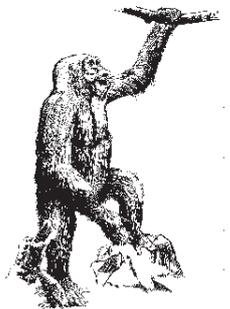
Zebras are plains living herd animals which rely heavily on their keen hearing and sense of smell to alert them to predators. Their main defence is running from predators, but if cornered they will bite and kick.



Speke's Gazelle is a herbivore which has long, slender legs for running and leaping: speed being its main defence. As members of the antelope family, the gazelles do not lose their horns each year.



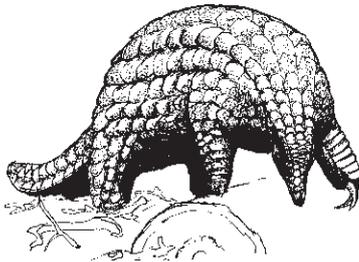
Gorillas are the largest of the great apes, but despite their size and strength, they are peaceful herbivores. Most predators ignore gorillas but if threatened the large males mount an aggressive display, screaming, beating their chests, and rushing forward. However they usually only bite if cornered. A large male rules the group and females, other males and young follow wherever he goes. Young gorillas have been known to play similar games to humans, e.g. "King of the Castle" and "Catch".





Baboons live in groups. At night they sleep in trees, away from danger. During the day they forage and visit water holes. If the troop is attacked they flee to the trees, the large males with their powerful canine teeth forming an effective rear guard.

Pangolins are insectivorous mammals whose bodies are covered with scales which are modified skin flaps. Mothers often sleep curled around their young using the scales to protect them both. They have long sticky tongues which can be up to 40 cm long. As they have no teeth the insects are crushed in their thick walled stomach. About half of the animal is prehensile tail and this is used as an aid in tree climbing. Pangolins also have large digging claws on their front feet and some species descend from the trees to sleep in burrows. These claws also help in getting their insect prey out of logs and mounds.



EURASIA

The Wolf has been exterminated over most of its previously large range. It is a long distance runner when hunting and has tremendously powerful jaws to help in killing the hoofed mammals which are its major prey. A wolf may eat up to 10 kg a day but 3 - 4 days may elapse before the next kill. The wolves generally hunt in packs.

The Moose is the largest of the deer family and can grow to 3 metres tall and weigh 800 kg. Its wide spread toes allow it to walk on marshy ground and help it to swim. Its coat provides good protection from the cold and the broad antlers are very effective against wolf attacks as well as being used to resolve disputes between rival males. (The moose is also found in North America).

Fennec Foxes are the smallest wild members of the dog family. They are nocturnal with large eyes and ears and a keen sense of smell. They are desert dwellers, but have thick warm coats to protect them from the extreme cold of desert nights. Their coat colour blends with the sandy environment in which they live. Food includes small reptiles, insects and some plant material. They live in small groups (about 10 animals), in interconnecting burrows.



Otters are well adapted to their aquatic existence - their bodies are streamlined, with water resistant fur, webbed toes, closable ear openings and a powerful tail. They are effective hunters, usually in the water and particularly on bright, moonlit nights. Hunting trips often last several days before the animal returns through the underwater opening to its den. Tame otters have been used to aid fishermen by either catching and retrieving fish or driving them into nets.

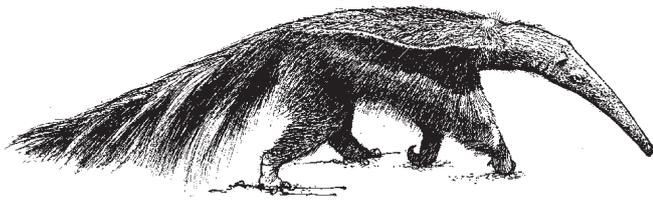


Squirrels spend most of their lives in trees, using their bushy tails for balance when running on branches, as a rudder or parachute when jumping or as a blanket while sleeping. Their powerful feet and claws enable them to climb in search of buds, blossoms, fruit, seeds, tree sap and shoots. They also raid nests for eggs and fledglings.

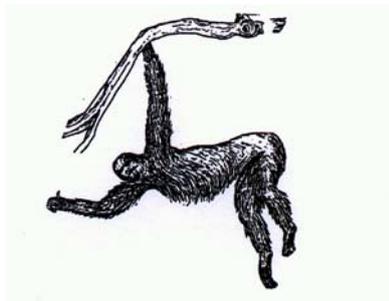
Polar Bears are well adapted to Arctic conditions. They have a dense underfur and an outer coat of long 'guard' hairs as well as a thick layer of fat under the fur to further protect against the cold. Polar bears are carnivorous, eating seals, fish, seabirds and occasionally stranded whales.

SOUTH AMERICA

Giant Ant Eaters can easily rip open termite mounds with their long sharp claws and powerful forearms. It then uses its long, sticky tongue to follow the termite tunnels, flicking it out up to 160 times per minute. The forelimbs are also an excellent defence against enemies (puma and jaguar). Baby ant eaters climb on their mothers backs and are carried for a very long time.



Humboldt's Woolly Monkey lives in tropical rain forests eating nuts and fruits. It has a prehensile tail (which can be used to grip things). To give themselves freedom of movement, these monkeys often suspend themselves by the tail alone. When sitting or resting they use tail and hands to explore their surroundings and find food.

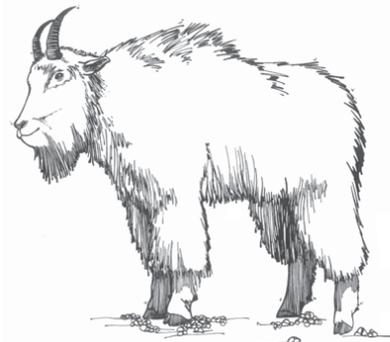


Sloths move slowly and deliberately through the trees of tropical rain forests with movements that appear to be in slow motion. Sloths do not need to exert themselves when seeking food. With large, curved claws on their long arms and legs, they can anchor themselves firmly on tree branches and feed leisurely on the surrounding leaves.



NORTH AMERICA

The Rocky Mountain Goat is extremely well adapted to the cold areas it inhabits. It is slow and sure footed, seldom leaping up hill, but not hesitating to jump down 7 metres onto small icy ledges. The horns, although small, have been known to kill grizzly bears. Hair from these animals is reputedly finer and warmer than the more famous Cashmere goat's.



The Beaver is one of the world's largest rodents. Although beavers spend most of their time in water, using their leathery tails as rudders, they are herbivorous feeding mainly on land. Beaver dams create a lake which protects their stick nests, preventing underwater entrances becoming exposed in dry seasons. The dams are built of logs which the animals fell by gnawing with their sharp teeth. However many beavers do without dams and live in burrows.

