

# How Are Polar Bears Adapted To An Arctic Environment?

White fur to camouflage from prey on the snow and ice

Small ears to reduce heat loss

Thick layers of fat and fur to insulate against the cold

Greasy coat to shed water after swimming

Strong legs for swimming and running

Sharp claws and teeth for catching and eating prey



Photo: Alaska Region U.S. Fish & Wildlife

Fur on the soles of their feet for insulation and gripping on the ice

# How Are Camels Adapted To A Desert Environment?

Thick fur on top of body for shade

Slit-like nostrils & 2 rows of eyelashes to keep sand out

Thin fur (apart from on top of body) to allow easy heat loss




Hump containing fat - a store of energy without insulating whole body

Large flat feet to spread weight on sand

Can tolerate high body temperatures and doesn't need to sweat to keep cool, so conserves body water



# How Are Cacti Adapted To A Desert Environment?

A composite image featuring a Saguaro cactus on the left and a close-up of a cholla cactus stem on the right. Four lines connect text boxes on the right to specific parts of the cacti: the top line points to the spines of the cholla stem, the second line points to a hole in the cholla stem, the third line points to the main body of the Saguaro cactus, and the bottom line points to the base of the Saguaro cactus.

Spines instead of leaves -  
minimise surface area and so  
reduce water lost by evaporation

Spines protect cacti from  
animals that might eat them

Stems that can store water

Widespread root systems that  
collect water from a large area

# How Are Owls Adapted To Be Predators?



Excellent hearing and eyesight

Very flexible neck - able to turn it up to 270 degrees in each direction, allowing them to locate sounds accurately from a great distance

Well-insulated by feathers, allowing them to sit and wait for prey for a long time without moving

Able to fly silently so can sneak up on prey



# Spider Monkey

They are omnivores, eating meat and vegetation, therefore they have a wide range of food to eat. They live mainly on food that can be found in trees such as leaves, fruit and bird eggs.

They live high up in the canopy out of reach of many predators. This is also where the most nutritious leaves can be found.

They are brown, grey or red, helping them to remain camouflaged.

They reproduce slowly, usually having one baby at a time with gaps of 2-5 years between babies. This allows them to focus on their babies while they are young, protecting and educating them to fend for themselves.

They can move quickly through the trees and work as a team to warn each other about potential attackers.

They have a long, strong tail that they can use as an extra limb. This allows them to hang and swing in trees easily.



## Adaptations of a Spider Monkey

- Omnivorous diet means food is never in short supply – from birds' eggs to fruit.
- Long, strong tail acts as an extra limb when climbing.
- Brown, grey or red fur keeps them disguised in their woody environment.
- Slow reproduction rate – up to five years between births – means the young are well-protected and educated.
- Living in tree canopies keeps them away from predators on the ground, and close to the largest fruits.
- Quick movements and ability to work as a team enable them to evade attackers.