



## KS1 Look, Learn and Do: At Marwell Zoo!

This activity pack is designed for adult helpers to use during a trip to Marwell Zoo, supporting children's learning at eight of our most popular and fascinating animals. The pack provides a series of directed observations, fun facts, and kinaesthetic activities in order to engage all children with their various learning styles.

Each factsheet also includes the answers to some of the most frequently asked questions about each animal, and a space for noting down any children's questions which will need researching later!

You can use as many of the factsheets as you like, depending on which animals meet your current topic requirements. Or just take them all and enjoy exploring the zoo!

The animals included in this pack are: **Humboldt penguin, cheetah, giraffe, Amur leopard, meerkat, Amur tiger, ostrich and ring-tailed lemur.**

## Curriculum Links

### SCIENCE

#### Working scientifically

- asking simple questions and recognising that they can be answered in different ways
- observing closely, using simple equipment
- using their observations and ideas to suggest answers to questions

#### Year 1 Animals, including humans

- identify and name a variety of common animals including fish, amphibians, reptiles, birds and mammals
- describe and compare the structure of a variety of common animals (fish, amphibians, reptiles, birds and mammals, including pets)

#### Year 2 Living things and their habitats

- identify that most living things live in habitats to which they are suited and describe how different habitats provide for the basic needs of different kinds of animals and plants, and how they depend on each other
- identify and name a variety of plants and animals in their habitats, including micro-habitats

# Humboldt penguin

Habitat: Coastal waters; nests on rocky shores and islands.

What is it like in this habitat? (*Cold in the water, but can be quite warm on land*)



Look: 

Can you see...

A hard  
beak?

Flipper-like  
wings?

Beady eyes?



Webbed  
feet?

Tiny  
feathers?

A speckly  
tummy?

How do all these features help the Humboldt penguin to survive in its habitat?

**Hard beak** – helps catch and grip onto fish

**Flipper-like wings** – for propelling through the water (swimming!)

**Beady eyes** – for a good sense of sight underwater and on land

**Webbed feet** – for steering underwater (like a boat's rudder)

**Tiny feathers** – to keep the penguin warm and protect its skin from the sun

**Speckly tummy** – for camouflage

Learn: 

**Did you know?** The Humboldt penguin does not come from Antarctica! It lives in South America.

Even though penguins cannot fly, they are still birds! What can you see that tells you penguins are birds? (*Beak, wings (flippers!), tiny feathers. They also lay hard shelled eggs, which they look after in a nest.*) Can you think of any other birds that cannot fly? (*Ostrich, greater rhea, emu, kiwi, dodo etc. Note: chickens, flamingos and peacocks all can fly!*)





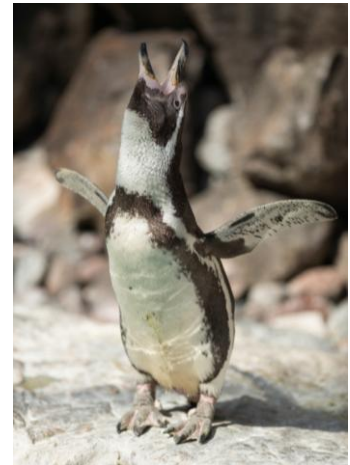
Do:



### **Penguin passion!**

Humboldt penguins have a special way of trying to attract a mate. They tilt back their heads, hold out their flippers, and make a loud braying call that sounds a bit like a donkey!

Have a go to see if **you** could attract a penguin mate!



Any questions?



**“Do any other penguins live away from the South Pole?”** Yes! As well as Antarctica, penguins also can be found in South America, southern Africa, Australia and New Zealand. They do all live in the southern hemisphere though (below the equator).

**“What do they eat?”** In the wild, Humboldt penguins eat oily fish like anchovies and sardines, as well as squid and krill. Here at the zoo, we feed them herrings that are MSC-certified, so that we know the fish is coming from a sustainable source.



**“Why do they have plastic tags on their flippers?”** The tags are there to help the zookeepers work out which penguin is which! Some of the zookeepers can tell the penguins apart by the pattern of speckles on their tummies, but it is easier to look at the colour coded tags.

**If you are not sure of an answer, don't guess!**

Write the question here so you can help the children find out the answer later.

# Cheetah

Habitat: Mostly grasslands.

What is it like in this habitat? *(Generally hot and dry for most of the year, with one rainy season)*



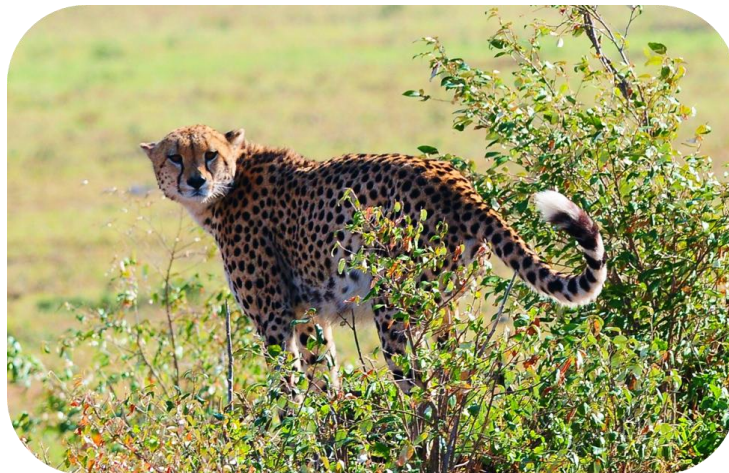
Look: 

Can you see...

A small  
head?

Spotty  
pattern?

Short fur?



Long legs?

Long tail?

Claws  
sticking out?

How do all these features help the cheetah to survive in its habitat?

**Small head** – lightweight to help it run faster

**Pattern** – helps it creep up close to prey (camouflage)

**Short fur** – helps keep it cool

**Long legs** – so it can take great strides as it runs

**Long tail** – to help with balance and turning sharp corners at speed

**Claws** – to catch prey, but also for grip

Learn: 

**Did you know?** The cheetah is the fastest land animal in the world! How fast do you think they can run? *(Up to 65mph!)*

But for most of their hunts, cheetahs rely more on their skill and ability to turn quickly than this amazing speed. Usually they run at around 30mph to catch their prey.





Do:



### **Race a cheetah!** (fair weather only)

Just beyond the cheetah enclosure, on the right, is a running track you can try one at a time. The speedometer at the end of the track will estimate how fast you run. Could **you** beat a cheetah in a race?



### **One small step for man, one giant leap for cheetah-kind**

Take one big step forwards, as far as you can reach (be careful not to do the splits!). Ask a friend to measure the distance between your feet, using whatever you have to hand. How far do you think a cheetah can travel in one stride at its top speed? (Up to 7m!)

Any questions?



**“Are they dangerous?”** Cheetahs are not usually dangerous to people. They tend to be quite cautious because of their delicate (easily broken) long legs – they do not want to get into a fight! Generally they will only come close out of curiosity.

**“Why do they have tear marks?”** The black streaks running down a cheetah's face are thought to help keep the sun's glare out of their eyes, a bit like sunglasses!



**“It looks like a cat!”** Yes, cheetahs are in the same family as domestic (pet) cats.

**If you are not sure of an answer, don't guess!**

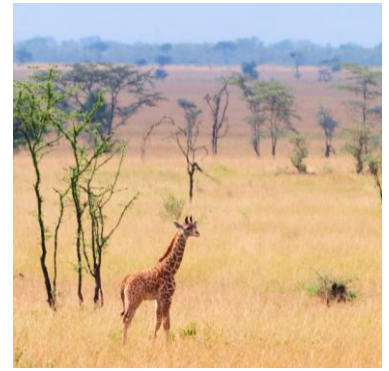
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# Giraffe

Habitat: Savannah and woodland.

What is it like in this habitat? *(Generally hot and dry for most of the year, with one rainy season)*



Look: 

Can you see...

A very long  
neck?

A long  
tongue?

Long legs?



Two little  
horns?

Big eyes?

Patchy  
pattern?

How do all these features help the giraffe to survive in its habitat?

**Long neck** – to help it reach high up leaves

**Long tongue** – to help it grab and pull leaves off the branches

**Long legs** – to help it reach high up leaves

**Little horns** – male giraffes use these for fighting

**Big eyes** – to look out for predators

**Pattern** – for camouflage (from a distance!)

Learn: 

**Did you know?** The giraffe is the tallest land animal in the world! How tall do you think they can grow up to? *Male giraffes can be over 5m tall! Females tend to be a bit smaller, at just over 4m tall.*

What do you think happens when a baby giraffe is born? *The baby drops nearly 2m straight down onto the ground, as the mother stays standing up!*

Since giraffes give birth to live babies, and do not lay eggs, which animal group do they belong in? *(Mammals)*

Do:



### Stand tall!

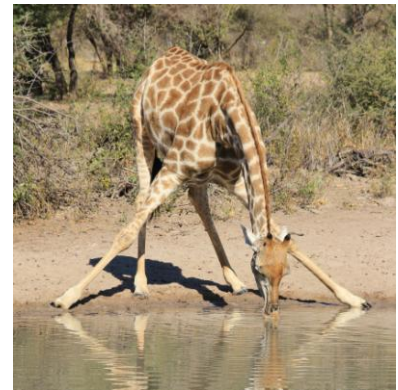
There is a wall chart just outside the 'Into Africa' giraffe house that you can use to compare yourself to a fully grown giraffe. How high can you reach up to?

Outside the Science and Learning Centre, there is another panel where you can compare your height to a baby giraffe that has just been born! Who do you think will be taller?

### Lion attack!

Stretch out your legs and bend down, like a giraffe taking a drink. Now imagine a lion is coming! Can you stand up again quickly, ready to run?

Giraffes always have to be careful when they bend down to drink, as this is when lions and other predators have their chance to attack.



### Any questions?



**“Why is its tongue that colour?”** Giraffes have dark, blue-black tongues to help protect them from getting sunburnt during feeding!

**“Do they all have different patterns?”** Yes, it is possible to tell each giraffe apart by looking at its pattern – just like our fingerprints! Giraffes also tend to have different types of pattern depending on where in Africa they come from.

**“Are they friendly?”** Yes, in a way: giraffes are gentle animals, and they can be quite curious and inquisitive. They are not usually very cuddly or affectionate though – they are still wild animals, not pets!

**If you are not sure of an answer, don't guess!**

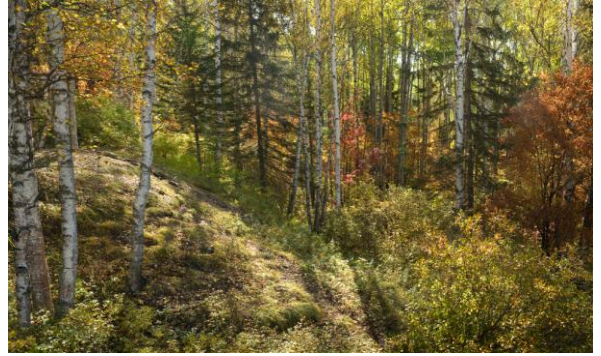
Write the question here so you can help the children find out the answer later.



# Amur leopard

Habitat: Mountain forests.

What is it like in this habitat? *(Lots of trees, mountain streams, very cold in the winter)*



Look: 

Can you see...

Thick fur?

Spotty  
pattern?

A long, furry  
tail?



Quite small  
ears?

Eyes looking  
forward?

Long  
whiskers?

How do all these features help the Amur leopard to survive in its habitat?

**Thick fur** – keeps it warm

**Spotty pattern** – helps it creep up on prey (camouflage in the trees)

**Long, furry tail** – for balance as it climbs and leaps

**Quite small ears** – to help reduce heat loss and keep warm

**Eyes looking forward** – to help it judge distances accurately when hunting

**Long whiskers** – to sense obstacles when hunting at night

Learn: 

**Did you know?** The Amur leopard is one of the rarest kinds of animal in the world. There are not very many left.

How many Amur leopards do you think scientists might have counted in the wild? Scientists recently counted less than 70, though this is more than in 2007 when they found less than 30.

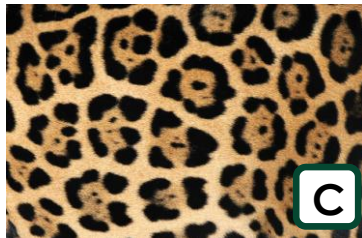


Do:



### Can the leopard change his spots?

No, but each Amur leopard has its own unique pattern of spots, just like our fingerprints! All leopards also have a different type of spotty pattern to the other big cats. Look closely at the Amur leopards. Can you tell which of these spotty patterns belongs to one of them?



*(Answer: pattern B belongs to an Amur leopard. A = a cheetah, C = a jaguar and D = a snow leopard)*

Any questions?



**“Why is it asleep?”** Like all big cats, Amur leopards love to nap! In the wild they are nocturnal hunters, so they would naturally spend time sleeping during the day.

**“It looks like a cat!”** Yes, Amur leopards are in the same family as domestic (pet) cats.

**If you are not sure of an answer, don't guess!**

Write the question here so you can help the children find out the answer later.

# Meerkat

Habitat: Dry grasslands and scrublands.

What is it like in this habitat? (*Hot and dry, with few trees*)



Look: 

Can you see...

Short fur?

Light brown  
colour?

Long, thin  
tail?



Dark eye  
patches?

Long, sharp  
claws?

Sensitive ears  
and nose?

How do all these features help the meerkat to survive in its habitat?

**Short fur** – keeps it cool (and prevents sunburn!)

**Light brown colour** – helps it creep up on prey, and avoid being eaten by other predators (camouflage in the sandy soil and dry grass)

**Long, thin tail** – to help it balance when standing up on its back legs

**Dark eye patches** – to help keep the bright sun out of its eyes, like sunglasses!

**Long, sharp claws** – for digging burrows and digging up insects for food

**Sensitive ears and nose** – to sense prey animals moving underground or in the grass

Learn: 

**Did you know?** In the wild, meerkats live in large family groups of up to 50 members! These groups are called 'mobs' and all the meerkats in a mob rely on each other for food and protection.

They all take it in turns to do chores such as searching for food, babysitting, and looking out for predators.



Do: 

### Watch out, predator about!

Can you see any meerkats which are standing high up on a rock or branch? These meerkats are on 'sentry duty', and their job is to let the other members of the group know when a predator is approaching. The sentry meerkat makes a different call depending on which type of predator is spotted.

Play this game to see if **you** could survive as a meerkat! Choose 3 sounds which will be the meerkats' warning calls for the following 3 predators: (for example "raaar" for the jackal, "eeeeeeep" for the eagle, and "ssssss" for the snake). Then choose one of you to be the sentry. The sentry stands up straight, while all the other players bend down as if they are digging for food. The sentry randomly selects warning calls to make, and the other players have to react as follows:

- Jackal or Eagle – sit down as quickly as you can (like the meerkats hiding in their burrow)
- Snake – snakes can slither down burrows, so hiding underground is no good! Jump up and down and hiss to try and scare away the snake, just like real meerkats do.

If you choose the wrong reaction to the sentry's warning call, or are too slow, you might be eaten and are out of the game!

### Any questions?

**"Do they make good pets?"** No, even though meerkats look very cute and cuddly, they are still wild animals and not used to living with people. They are also predators so have a very nasty bite!

**"How long do they live for?"** In captivity, meerkats can live for up to around 13 years. This is likely to be longer than they would live for in the wild, because meerkats in zoos are protected from predators, have a regular supply of food, and have access to veterinary attention in case of illness.

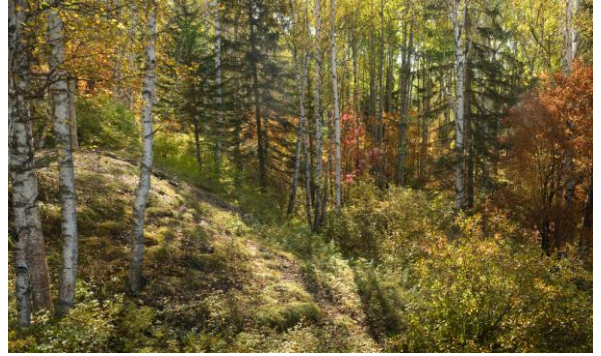
**If you are not sure of an answer, don't guess!**

Write the question here so you can help the children find out the answer later.

# Amur tiger

Habitat: Forests and woodlands.

What is it like in this habitat? (*Lots of trees, mountain streams, very cold in the winter*)



Look: 

Can you see...

Long, thick  
fur?

Stripy  
pattern?

Sharp teeth?



Long  
whiskers?

Big strong  
paws?

Sharp  
claws?

How do all these features help the Amur tiger to survive in its habitat?

**Thick fur** – keeps it warm

**Stripy pattern** – helps it creep up on prey (camouflage in the trees)

**Sharp teeth** – to kill and eat prey

**Long whiskers** – to sense obstacles when hunting at night

**Big strong paws** – helps it move on snowy or icy ground

**Sharp claws** – to catch and kill prey

Learn: 

**Did you know?** The tigers here at Marwell were all born in captivity. But they still need the same things as wild tigers to stay alive and keep them healthy. What are these things? (*Water, food, air, shelter etc.*)

Look at the tiger's big claws and sharp teeth (if it opens its mouth!). What do you think the tiger likes to eat?



☐ Meat – a **carnivore**    ☐ Plants – a **herbivore**    ☐ Both – an **omnivore**

Can you see any leftovers from the tiger's lunch in the enclosure?



Do:



### **Creeping tigers**

Tigers have to be very good at quietly creeping up on their prey, so that the prey animals don't spot the tiger coming and run away! The tigers' stripy camouflage helps them blend into the background, and their big soft paws help them move quietly.

Have a quick game to see how quietly **you** can creep. Choose one of you to be 'the listener'. He or she must shut their eyes or turn their back to everyone else. The rest of you must creep as quietly as possible towards the listener. Whoever reaches them first is the winner – but if they hear you coming you're out!

Any questions?



**"It looks like a cat!"** Yes, tigers are in the same family as domestic (pet) cats.

**"Do they like going in the water?"** Yes, unlike most other cats, tigers are keen swimmers and can often spend time in the water.

**"Are there any other stripy cats?"** No, tigers are the only wild cats with an all-over stripy pattern. Each individual also has a unique pattern of its stripes – just like our fingerprints!

**"Wow, it's so big!"** Yes, Amur tigers are the biggest cats in the world! Their large size helps to keep them warm and subdue their prey.

**If you are not sure of an answer, don't guess!**

Write the question here so you can help the children find out the answer later.



# Ostrich

Habitat: Desert and dry grasslands.

What is it like in this habitat? (*Hot and dry, with few trees*)



Look: 

Can you see...

Large eyes?

Fluffy  
feathers?

Long legs?



A hard  
beak?

Tiny wings?

Sharp  
claws?

How do all these features help the ostrich to survive in its habitat?

**Large eyes** – to look out for predators

**Fluffy feathers** – to help it keep warm at night, or cool off during the day

**Long legs** – for running quickly

**A hard beak** – for nibbling plants or catching prey

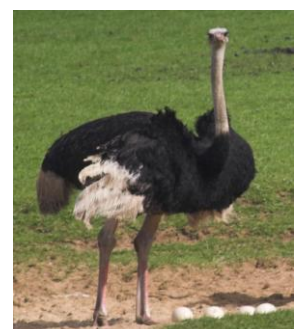
**Tiny wings** – although the ostrich has lost its ability to fly, it can still use its small wings for steering as it runs, keeping balance, and flapping displays

**Sharp claws** – for defence from predators and grip as it runs

Learn: 

**Did you know?** It is easy to tell the male and female ostrich apart – the males have black and white feathers, and the females are brown.

These colours may help the ostrich to camouflage when they are sitting on their eggs: the dark coloured males sit on them at night, and the lighter females have their turn during the day!





Do:



### **Keep away from my chicks!**

When a male ostrich needs to defend his chicks from a nearby predator, he will first try to scare the predator away by waving his wings and making a low 'booming sound'. Can **you** make yourself look scary by waving your arms and 'booming'?

If this threat display is not enough to scare off the predator, the ostrich can attack using its powerful legs and claws to kick. (please **don't** try this one!)

Any questions?



**"How fast can an ostrich run?"** Ostrich are excellent long distance runners, and can run at speeds of around 30mph for over half an hour. They can also reach a top speed of over 40mph in short bursts.

**"How tall are they?"** A big male ostrich can grow to be over 2.5m tall! A female ostrich is usually smaller, at just under 2m tall.

**"Do ostrich really bury their heads in the sand?"** No, this is just a myth. However, they do sit down and lay their long necks flat along the ground, so that they appear just to be a small mound of earth. This behaviour may have inspired the 'head-burying' story.



**If you are not sure of an answer, don't guess!**

Write the question here so you can help the children find out the answer later.

# Ring-tailed lemur

Habitat: Scrubland and forests of Madagascar.

What is it like in this habitat? *(Generally hot and dry for most of the year, with one cooler rainy season)*



Look: 

Can you see...

A long stripy tail!

Long back legs?

Thick, grey fur?



Large, pointy ears?

Long, wet nose?

Human-like hands?

How do all these features help the ring-tailed lemur to survive in its habitat?

**Long stripy tail** – to help it follow other members of the group and balance in trees

**Long back legs** – to help it jump from tree to tree

**Thick, grey fur** – to keep it warm in cool weather and at night

**Large, pointy ears** – for a good sense of hearing

**Long, wet nose** – for an excellent sense of smell (their main sense for finding food)

**Human-like hands** – for good grip as it climbs trees

Learn: 

**Did you know?** Male ring-tailed lemurs battle by having “stink fights”! They rub scent from a special gland on their wrist onto their tails, and wave the tails at each other to waft the scent. The lemur with the stinkiest tail wins!





Do: 

### **A lemur's tale...**

Most ring-tailed lemurs have exactly the same number of black rings on their tails. Look closely at Marwell's ring-tailed lemurs: do **you** agree? How many black rings can you count on each of the lemurs' tails? *(usually 13, including the black tip to the tail; occasionally 14)*

Any questions? 

**“Where do they come from in the wild?”** All wild lemurs, including the ring-tailed lemur, are only found on the special African island of Madagascar!

**“Do they make a noise?”** Yes, the lemurs are some of the noisiest animals at Marwell! Every so often, the lemurs all start screeching and howling together. Listen out for them while you walk around the zoo – it is very loud!

### **“Why are they sitting like that?!”**

Ring –tailed lemurs like to sunbathe, just like we do! In the wild, this behaviour helps them to warm up their tummies first thing in the morning after a chilly night.



**If you are not sure of an answer, don't guess!**

Write the question here so you can help the children find out the answer later.

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