

Madagascar Information and History

The Island of Madagascar

The Republic of Madagascar is a tropical island in the Indian Ocean about 500 kilometres off the southern coast of Africa. It is Africa's largest island covering over 587,040 square kilometres (approximately 226,658 square miles) and is the world's fourth largest island after Greenland, Papua New Guinea and Borneo. The capital city Antananarivo, which has a population of around 4,000,000, can be found in the middle of the island.

History of the Island

Madagascar was formed by the continental drift rather than a volcanic eruption like its neighbouring islands of Mauritius, Réunion, Rodrigues and the Comoros.

The island tore off mainland Africa around 165 million years ago and drifted off like a giant ark. The only animals on board were dinosaurs and a few primitive birds and mammals. The mainland ancestors of primates and a few other animal groups made it to the island after the divide. It is thought that these animals arrived on the island by rafting on floating logs or vegetation.

Later the island became inhabited by the Malagasy people who first arrived on the island between 1500 and 2000 years ago. Native Malagasy people are a mixture of Asians and Africans.

Weather

The island has a tropical climate along the coastline which makes it an ideal environment for rainforests. Inland the climate is temperate while the southern side of the island is arid and covered in desert land. Madagascar has two seasons, the rainy season (December-April) where the island receives

between 300-3,500 mm of rainfall and the dry season (May-November) when average midday temperatures range from 25°C in the highlands and 30°C on the coast.

Geography

The island has 4,828km of coastline with long stretches of sandy beach, clear water and coral reefs. A steep mountain range runs parallel to the eastern coast. Madagascar's highest mountain, Mount Maromokofro, towers an impressive 2,876m (9,450 feet) over the island's northernmost regions. The lowest point on the island is level with the Indian Ocean (0m above sea level).

Madagascar contains vastly different habitats which sustain the island's huge number of endemic animal and plant life. Madagascar and the nearby island of



Comoros have nearly a quarter of all the flowering plants in Africa including baobab trees, unique cacti and aloes in the drier areas. Madagascar has many National Parks that preserve some of the island's original rainforests.

Natural disasters

Madagascar is prone to natural disasters including cyclones, drought and locust infestation, and was also affected by the 2004's Indian Ocean Tsunami which hit the island's east coast.

Human Effect on the Environment

Madagascar was once covered in rainforests but due to deforestation around 90% of the island's rainforests have been destroyed. When humans inhabited the island they began to use a slash-and-burn technique on the rainforest to clear land on the island. This has caused severe soil erosion and the island is now often referred to as the Great Red Island. However, conservation issues are now better understood and some nature reserves have been set up on the island, and more Malagasy people are being trained in nature conservation techniques.

Wildlife of Madagascar

Many of the animals and plants found on Madagascar are endemic, which means they are native to the island and cannot be found anywhere else on the earth. These species are particularly vulnerable because their numbers are small and if their habitat is destroyed they have nowhere else to go being surrounded by the sea.

Many of Madagascar's primates are endangered, including the Indris which is now restricted to a belt of rainforest. Madagascar is home to 90% of the known species of lemurs, which are related to the Indris. Thirty species of lemurs on the island are listed as endangered to some degree. The main threats to these animals are the loss of food plants due to the growing timber trade and forest destruction.

Island culture

Madagascar has a population of around 17.5million people. The Malagasy people are a mixture of Asians and Africans who have inhabited the island for around 2,000 years. The most common languages spoken are French and Malagasy and the most followed religions are traditional Malagasy religions, Christianity and Islam.

Although there are some towns and cities, much of the population live in the countryside, usually in villages. A majority of Malagasy people are farmers who live mainly off the land producing coffee, vanilla, sugarcane, cloves, cocoa, rice, cassava (tapioca), beans, bananas, peanuts and livestock products that they export

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to other countries, using one of the country's many airports. In fact, at the moment there is more import than export and the Malagasy economy is suffering.

However, many Malagasy people are finding jobs in the growing tourism industry. Their children have to go to school from the ages of six to fourteen, and the island has a university, with six different campuses.

Many Malagasy people still maintain the local traditions of playing music and storytelling, weaving and wood carving. They eat mainly rice, with pork, chicken, beef or seafood, often in hot curries or stews and also a lot of the island's abundant tropical fruit such as lychees and pineapples.

Useful websites

http://www.worldwildlife.org/wildplaces/mad/index.cfm

http://www.anthrotech.com/madagascar/

http://www.pbs.org/edens/madagascar/

Animal Information

Common name:

Lion

Scientific name:

Panthera leo

Appearance:

Lions are large felines with brown or beige coats. Male lions have a brown mane, which tends to grow darker and fuller as the animal ages. Cubs are born with spots that fade as they grow. Lions can grow to be up to 1.8 m long and weigh up to 190kg. Males are larger and heavier than females.



Diet:

Lions hunt in groups for their food and it is usually the female that will hunt for their pride, although lions will steal prey from other predators. They eat antelope, wildebeests (gnu), zebras, warthogs, giraffes and buffalo. Their main competitors for food are other prides of lions.

Habitat and location:

Lions can be found in the south of the Sahara in Africa where they live mainly in grasslands and the savannah.

Life span:

In the wild, females live up to around 15 or 16 years. Males have been known to live to 16, but typically die around 10 years old.

Behaviour:

Lions live in groups called prides, and are the only cats which live in large family groups. A pride can have up to 40 lions but usually have between 10 and 15 animals and is controlled by a dominant male lion. The pride will control a territory, where they exercise hunting rights. The lion's famous roar can be heard up to five miles away and is usually used as a way of asserting territory. Lions spend much of the day sleeping and tend to be active in the late afternoon, hunting at night. They can also climb trees, where they sometimes rest in the afternoon. A lion can run for short distances at 80kph (50mph) and leap as far as 10metres.

Predators:

The main threat to lions (apart from man) is from other lions, in disputes over control of a pride or over territory. Loss of habitat to population growth and agricultural expansion as well as hunting and poisoning by livestock ranchers.

Status in the wild:

Since the early 1950s, the lion population in Africa has been reduced by half. Today fewer than 21,000 remain in all of Africa. Although the population of lions is declining, they are not currently listed as endangered or threatened.

Zebra

PAGE

Scientific name:

Equus burchellii

Appearance:

Zebras have a horse-like appearance with hoofed feet and black and white stripes. Every zebra has a unique pattern of stripes. These stripes may help to confuse predators chasing the zebra, making them misjudge distances. They are over 1.2m tall at the shoulder and weigh over 270kg. They have a long, upright, bristly, black and white mane. Large eyes and ears help the zebra detect predators early, allowing it to run away.

Diet:

Zebras graze on many types of short grass and leaves.

Habitat and location:

Zebras live in the open savannah and grasslands in Africa, mostly in the south of the Sahara.

Life span:

They can live for around 25 years.

Behaviour:

Zebras are very social animals and live in large, stable family groups which are led by females. Families will sometimes merge to form large herds and may even join herds of antelope and wildebeest for added protection.

As members of a herd graze, there is always one zebra on watch for predators. Zebras do not have specific territories and will wander wherever food can be found. They tend to stay near water holes as they usually need to drink every day.

They can run up to 65kph (40mph) in short bursts in order to escape from predators (like lions and hyenas) and if necessary will defend themselves with their hooves and teeth.

Predators:

Zebras' predators are mainly lions and hyenas but calves are also vulnerable to leopards and wild dog.

Status in the wild:

Zebras are not in danger yet.

Hippopotamus

PAGE 3

Scientific name:

Hippopotamus amphibius

Appearance:

Hippos are brown or dark grey in colour and weigh between 3,000 and 4,500kg making them the second heaviest land mammal after the elephant. Baby hippos weigh 28-50kg at birth. Hippos have an almost hairless body, a huge mouth and canine teeth up to 72cm long. Their ears, nose and eyes are positioned on the top of their heads so they can be aware of their surroundings when almost submerged in the water.

Diet:

Hippopotami are vegetarian, eating grass that grows alongside their river habitats. They can eat up to 45kg of grass in one night and will sometimes travel considerable distances each night to reach the best grazing.

Habitat and location:

Hippos live in deep water, usually rivers or lakes, with reed beds or grasslands next to them. They can be found in Africa in the south of the Sahara and the Nile River valley in East Africa.

Life span:

Hippos can live between 40 and 45 years.

Behaviour:

Hippos can be found alone but usually live in groups of females up to 30 with one dominant male. Bulls (adult males) often roar and fight each other, using their long canine teeth as weapons. They also 'yawn' to warn other bulls to stay away by showing them their teeth.

Although they can move fairly fast on land, hippos generally prefer to stay in the water where they move easily and freely. They can sink to the bottom of a river and walk or run along the bed holding their breath for up to six minutes. They are nocturnal, emerging from the water at night to eat grass.

Predators:

Few predators will attack an adult hippo, but calves are in danger from lions, hyenas and crocodiles.

Status in the wild:

Hippos are still hunted for meat, for sport and also because they sometimes damage crops. Today, these animals are found mainly in parks or on preserves where they are protected from poachers. In these safe havens, hippo numbers are slowly increasing.

Giraffes

Scientific name:

Giraffa camelopardalis

Appearance:

Giraffes are the tallest animals on earth growing up to 5.5metres and weighing up to 1270kg. A baby giraffe (called a calf) weighs about 59kg at birth and is about 1.5metres tall.

Giraffes are beige with brown blotches that grow darker as they get older. These blotches act as camouflage among the trees. Giraffes are born with two short horns; males have knobbed, hairless horns, females have thinner, tufted horns. Females are about 30cm or so shorter and a bit lighter.



Giraffes eat leaves mostly from acacia and mimosa trees, their tough lips and thick saliva protecting them from the trees' thorns. They eat on average 35kg a day and spend between 16 and 20 hours a day eating. They have no competition for food as they can eat the leaves from the top of trees which other animals cannot reach. Giraffes only drink water rarely as they gain most of their moisture from the leaves. In order to drink water from a river or pool, the giraffe has to spread its front legs and bend its long neck to the water, which is a dangerous position for the giraffe since it can't see its enemies and can't get a fast start running.

Habitat and location:

Giraffes can be found in the African grasslands (or 'savannas') south of the Sahara, and tend to live in the areas of the grassland where there are trees.

Life span:

Giraffes can live between 15 and 20 years.

Behaviour:

Giraffes gather together in groups of around 12 to 15 animals which are led by a dominant male. These herding mammals can see their enemies (like lions) from long distances and only sleep for a few minutes at a time, to keep alert to threats. Giraffes can run up to 56kph (35mph) for short bursts.

Predators:

Lions are giraffes' biggest predator but calves may be taken by hyenas, leopards and African wild dogs. To defend themselves, giraffes kick out their long legs.

Status in the wild:

Vulnerable. Giraffes are hunted for their meat, coat and tails. Habitat destruction and fragmentation are also threats to giraffe populations.

No current protective laws.



PAGE

Ring-tailed Lemur

Scientific name:

Lemur catta

Appearance:

Ring-tailed lemurs have coats of soft, thick, woolly fur. The fur on their body is brownish grey and their tails are ringed with white and black fur. Their bodies are 40cm long, but their tails are around 60cm. They have large eyes, a long snout, and a long, ringed tail.

Diet:

Ring-tailed lemurs eat fruit, leaves, flowers, insects, and tree gum.

Habitat and location:

Ring-tailed lemurs occur in southern Madagascar, an island off the coast of south eastern Africa. They tend to prefer areas of scrub with nearby trees.

Life span:

In captivity, ring-tailed lemurs can reach 30 years old.

Behaviour:

The ring-tailed lemur spends most of the time on the ground but it is a good tree-climber (other lemurs spend most of their time in trees). When walking or running their tails are held high so that other lemurs can follow them easily. Because the different lengths of their fore and back legs make it difficult to run fast, when fast escape is necessary, lemurs will often run sideways in a skipping motion.

Lemurs are very social, living in groups of between 5 and 30. Females are dominant and stay in the group throughout their lives. Grown lemurs groom each other with their teeth and tongue, picking through their fur to get rid of dead skin and tiny pests.

Predators:

The ring-tailed lemur's natural predators are birds of prey such as owls, hawks and buzzards, snakes and the fossa (a bobcat-sized mammal), and humans.

Status in the wild:

Endangered. The habitat of ring-tailed lemurs is disappearing because of fires, overgrazing of domestic livestock and logging. Ring-tailed lemurs are also threatened by hunting.



Aye-aye

PAGE 6

Scientific name:

Daubentonia madagascariensis

Appearance:

Aye-ayes have long, coarse black or brown fur which is tipped with white. They have large, round eyes that are surrounded by black rings. They have large ears and clawed paws with very long fingers and an especially long middle finger that they use for extracting insects from holes on trees. Their bodies are 40cm long plus a tail that is 61cm long.

Diet:

Aye-ayes feed on seeds, fruit, nectar, fungi and insects. They are especially skilled at finding wood-boring larvae by tapping on the wood, listening for hollow spaces then extracting the larvae using their thin middle fingers.

Habitat and location:

Aye-aye are native to Madagascar and live in the forests, mangroves and bamboo thickets on the island.

Life span:

In captivity aye-ayes can live up to 23 years although it is not known how long they live in the wild.

Behaviour:

The aye-aye spends most of its time in trees. During the day, the aye-aye sleeps in a nest built of leaves and twigs which is located in the fork of a tree. Large trees may contain up to six nests. At night, aye-ayes forage for food in the upper canopy of forests. They use their excellent hearing to listen for grubs moving beneath the surface of the bark before ripping the bark with their teeth and pulling the grub out with their long middle finger.

Aye-ayes are generally solitary and spend most of their time on their own, although some live in pairs. They move through the trees by both climbing and leaping between branches.

Status in the wild:

Endangered. Population estimated to number less than 2500 adult aye-ayes and the number is decreasing, due to loss of habitat. It is also sometimes killed by native people due to the belief that it is an omen of death. There is now an established Reserve for aye-ayes in Madagascar.

Fossa

PAGE 7

Scientific name:

Cryptoprocta ferox

Appearance:

The fossa looks a little like a cross between a dog and a cat. It has large eyes, large rounded ears, sharp teeth, webbed feet, a dog-like snout and short, brown to black fur. The fossa is about 70 - 90cm long, with a tail which is from 70 - 85cm long. It weighs about 20 to 33 pounds (9 - 15kg).

Diet:

The fossa is a carnivore. It is a ferocious hunter that eats small animals, such as lemurs, rodents, reptiles (like snakes), insects, and some domesticated animals (like chickens and small pigs).

Habitat and location:

The rainforests and wooded savannas on the island of Madagascar. Fossas are found throughout the island wherever there is forest, but they are rare, and their numbers are unknown.

Life span:

Around 20 years in captivity, but less in the wild.

Behaviour:

Fossas hunt at night, and can roam up to 5 to 10kilometres in a night in search of food. Fossas are fast runners and are also very good at climbing trees (and jumping from tree to tree).

Baby fossa are born blind and toothless. The mother cares for the young for about a year.

Predators:

As Madagascar's largest predator, they have no natural enemies, but local people sometimes kill them because they attack chickens.

Status in the wild:

Fossas are considered vulnerable not only because they are threatened by deforestation, but because they reproduce very slowly.



Comparing Settings

The film Madagascar has a variety of contrasting settings; Central Park Zoo in New York City; the cargo ship which takes the animals across the Atlantic Ocean and the Island of Madagascar.

Each of these settings is very different and unique.

Central Park Zoo is home to species of animals from all over the world, many of which were actually born in the zoo. The zoo is a very busy place when the opening time bell rings as hundreds of people come to see the animals. At the closing bell the animals are waited on by the staff who bring the animals gourmet food, polish their hooves and blow-dry their manes.

A huge **cargo ship** takes the animals on their journey to Kenya. The ship is loaded with shipping crates containing a variety of cargo, including the gang from Central Park Zoo. The ship has a captain and crew to sail the ship as well as a gang of stowaway penguins determined to take over the ship.

Madagascar is an unusual island with unique animals and plants. The native lemurs and fossas are scared by the arrival of the Central Park Zoo animals, as they have no idea what they are. The gang are also confused by the natives and want to find the people who can help them return to New York.

Activity

Compare the different settings created in the film Madagascar. Use the images in the table and the image gallery on the Madagascar website www.madagascarmovie.co.uk to help you.

Comparing Settings

Activity

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LOCATION

Who might you find there?

What would it be like there?

What does it look like?

What might happen there?

CENTRAL PARK ZOO

CARGO SHIP





film education



Real-Life Characters

The characters in Madagascar are based on real-life animals. Film researchers were used for the film Madagascar to find out factual information about the animals that appear in the film. The animators then used the information to produce animated versions with unique personalities.

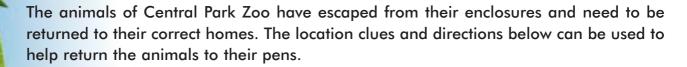
Activity

Compare the characters in the film to the real-life animals using the table below. Use non-fiction books to find the factual information.

Character in film	Type of	Behaviour:		Diet:		Habitat:	
	Type of animal	In the film	In real life	In the film	In real life	In the film	In real life



A Trip to the Zoo



Whole class listening activity

Give each child a copy of the map on the next page and explain that they need to listen carefully to each instruction and add the name of the animal into the correct enclosure on the map.

Read each instruction twice giving the children time to find the correct location before reading the next clue. Check the childrens' answers using the completed map.

Monkey Island can be found in the northwest corner of the map

The bat house is to the east of the giraffes

Flamingo Island is diagonally to the northeast of the zebras

The parrot cage is adjacent to both the giraffes and the zebras

The penguins are north of the parrots

The kangaroos' home is in a horizontal line with the penguins and the ostriches

The elephants can be found in the southwest corner of the zoo

The hippopotamus pool is vertically below the zebras

The lions are southwest of the giraffes

The koalas can be found in the home to the east of the ostriches

The snakes can be found in the southeast corner of the zoo

The tigers can be found in between the lions and the snakes

The camels live in the northeast corner of the zoo.







Animals Escape!

As Marty the zebra's tenth birthday arrives he begins to feel fed up. Marty has spent his whole life in the zoo and believes there must be something more to life than just entertaining people. He dreams of escaping to the wild and joins the psychotic penguins in their daring escape plans.

When his friends realise that Marty has gone they too escape and follow him to Grand Central Station in the heart of New York. People on the underground trains are shocked and scared of the group. They panic and run while the police gather around trying to catch the animals.

Activity

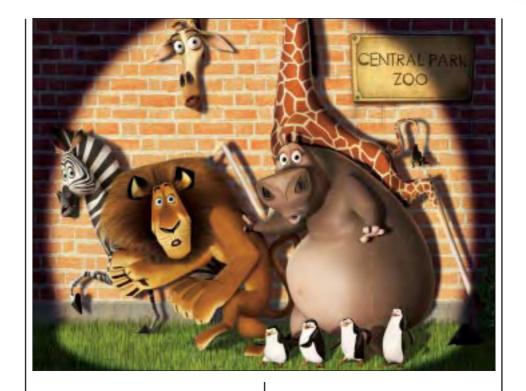
Imagine you are a reporter for the New York Times. Write a report of the incident detailing how the animals escaped, how they made it to the train station and any comments from eyewitnesses that were at Grand Central Station at the time.



DAILY NEWS

DATE: NAME:

THere's a zoo Loose!



Island Life

Madagascar is a tropical island in the Indian Ocean just off the southern coast of Africa. The island has many rainforests which are home to a variety of interesting animals and plants including lemurs, chameleons, geckos and octopus trees. There are long stretches of sandy beach with clear water and coral reefs.

Activity

Imagine you were stranded on one of Madagascar's more remote beaches that has not been inhabited by people. How would you survive without the basic essential items such as food, water and clothing?

What would it be like to live on the island? Write an imaginative story about surviving on the island in a setting that is very different to your life at home.





Animal Actions

The animals of Central Park Zoo are excited by the bell thatrings in the morning to signal opening time. This tells them it is time to perform for the general public who come to see them.

Alex the Lion, loves nothing better than performing for the visitors of Central Park Zoo. He poses, leaps about and balances in different positions.

Gloria the Hippopotamus is a very graceful swimmer, twisting and twirling in the water.

Marty the Zebra shows off to the visitors by galloping and trotting on his exercise bike.

Melman the Giraffe is not quite as acrobatic as his friends but entertains the people by being clumsy!

Activity

The animals' movements in the film and their movements in the wild can be used to stimulate and inspire the children during a dance session.

Warm-up activity

Show the children a clip of the lemurs dancing in the film Madagascar. Point out how they move by wiggling their hips and moving their arms and legs to the beat of the music. Play a piece of music with a strong, exciting beat and ask the children to move like the lemurs.

Main activity

Show the children a picture of Marty or a real-life zebra and ask them to think about how he moves. Ask for volunteers to suggest words that describe a zebra's movement. You could include:

gallop jump trot spring leap

Ask the children to try moving like a zebra, calling out words that they have suggested as they move, to inspire their actions.

Repeat this process with the other animals from the film: lions, hippos, giraffes, penguins and monkeys. Other useful words include:

skip, hop, bounce, turn, spin, freeze, still, twirl, twist, gentle, fast, waddle, wobble, flap, swing, dive, glide, huddle and prance.



Once the children have practised their movements ask them to think about linking their favourite movements to make a short dance sequence.

Encourage the children to perform their sequence for the others so the rest of the class can guess which animal they are.

Cool-down activity

Ask the children to find a space on the floor and lay down with their eyes closed. Play a piece of music which sounds like the sea and ask the children to imagine that they are laying on a beach with the sun beating down on them.

Read the following passage to them in a quiet and calming voice, only raising your voice for the dramatic ending!

'Imagine that the sky is bright blue with no clouds and you can hear the wave gently lapping on the beach. As the sun gets hotter and hotter the tide starts to come in and the waves begin to tickle your toes. Another wave washing in and this time comes up to your ankles. The water feeling lovely and cooling and the sea breeze drifts across your face.

The next wave washes up to your knees. As you run your fingers through the warm sand another wave washes up to your stomach. As you listen to the sound of the waves you can hear a huge wave washing in...andquick, jump up before it washes you away!'



Curriculum links for PDF worksheets

Worksheet	Key Learning Areas	Outcomes
Comparing Settings	Geography Literacy	Students to compare the features of the settings in the film
Real Life Characters	Science Literacy	Students to compare the characters in the film to their real-life counterparts
A Trip to the Zoo	Geography Literacy Numeracy	Students to listen to instructions indicating where locations on a map are
Animals Escape!	Literacy	Students to write a newspaper article describing the animals escape from the zoo
Island Life	Literacy	Students to create a piece of imaginative writing about being stranded on an island
Animal Actions	P.E.: Dance	Students to create dance sequences which have been inspired by the movements of the animals in the film