

MY AMAZING RHINO BOOK



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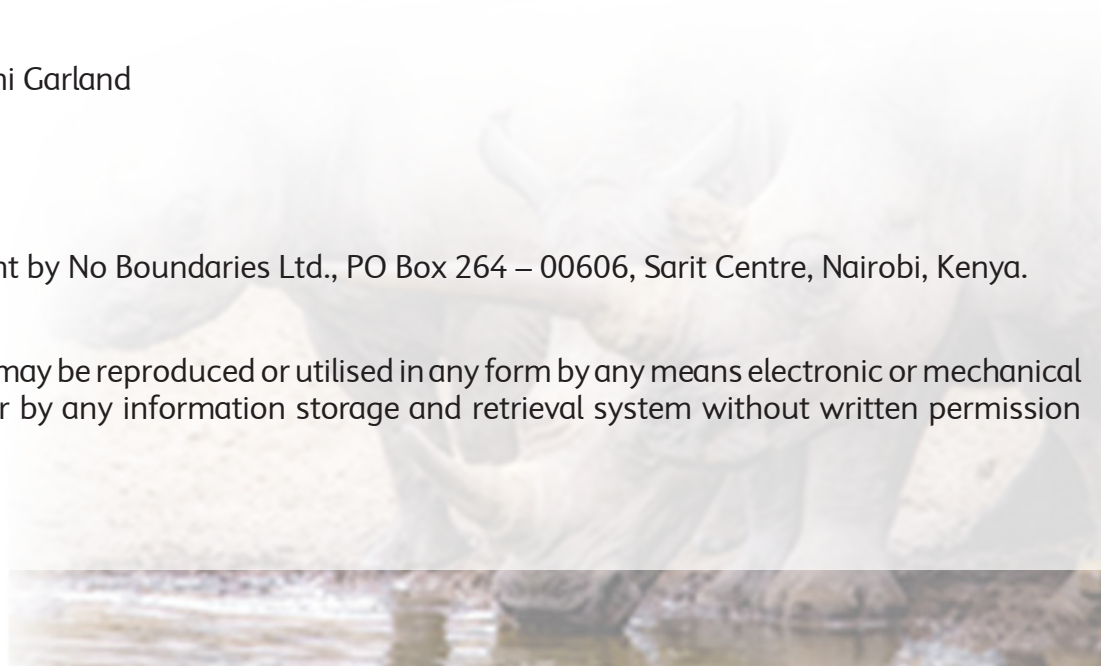
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About WildlifeDirect

Founded by Dr. Richard Leakey and run by Dr. Paula Kahumbu, WildlifeDirect is an innovative and engaging wildlife conservation organisation. Its main work is to educate and inspire the next generation to learn about our wonderful wildlife, to inspire them to treasure it, and to take actions to defend and protect it. WildlifeDirect does this through various initiatives including:

- **Wildlife Warriors Kids Clubs** - children of all ages are encouraged to join this club to gain exciting member benefits such as the monthly newsletter and invitations to events.
- Wildlife Warriors events such as taking children to camp in wilderness areas, do citizen science, meet conservation leaders, guided tours, stories and games.
- Wildlife Warriors lent its name to a Kenyan documentary series produced by WildlifeDirect. The series tells the incredible tale of Kenya's endangered wildlife and all the dedicated local conservation heroes out there protecting it. The show aims to increase awareness of conservation issues in Africa, to encourage you to visit protected areas like parks, forests and reserves, and to take action when you see threats to wildlife. My Amazing Rhino book is based on the Wildlife Warrior Rhino episode that aims to educate you and to inspire you to help save Africa's rhinos.
- Experiential in-school wildlife education campaigns that include films, books, visits, projects and teacher resources.
- Hands Off our Elephants and other campaigns to save wildlife and their habitats.
- Wildlife content presented in the form of interactive books, newsletters, videos and social media campaigns.
- Fundraising campaigns to support wildlife and habitat conservation.
- Lobbying stakeholders, especially the government to make wildlife more accessible to Kenya's children.
- An exciting development in the works are the Wildlife Warriors Field labs and Education Centres, where children can interact and learn about wildlife and wildlife habitats.

Sign up today to join the Wildlife Warriors Movement!

Dedicated to Ian Lemaiyan, who lost his life doing the work he loved - protecting Kenya's wildlife. May his legacy live on and inspire us to follow in his footsteps.

Acknowledgements

This book would not have been possible without the help of many. We would like to say a heartfelt thank you to Dr Paula Kahumbu, CEO of WildlifeDirect, and her entire team. Thanks to their vision and commitment, this book was born.

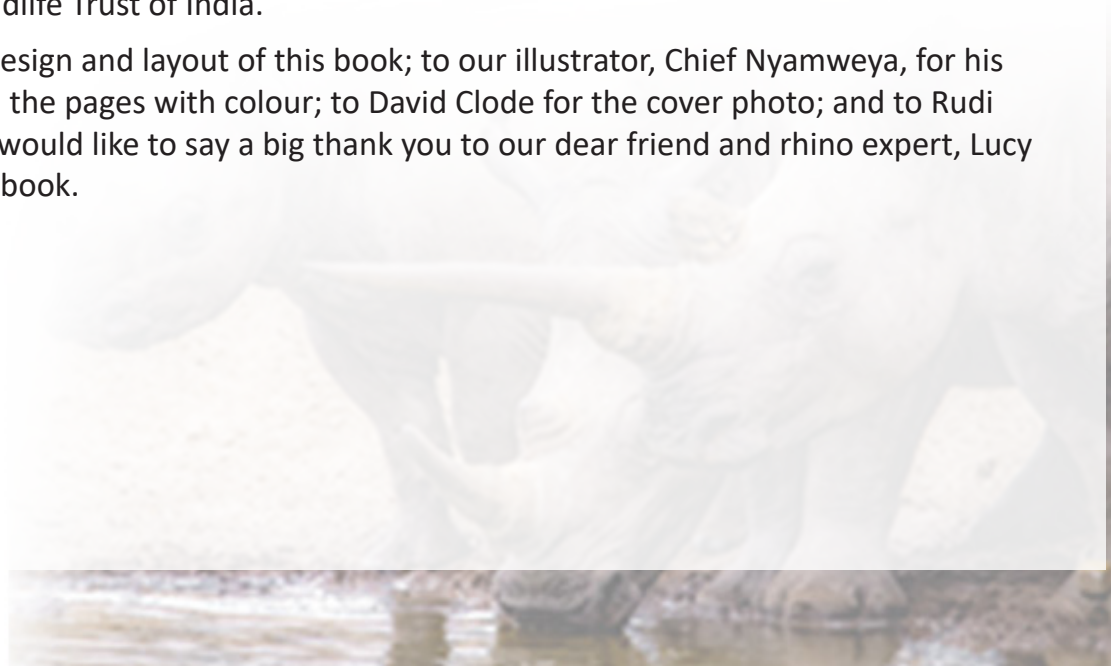
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Muthoni Garland

Editor, Storymoja



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THE MIGHTY RHINO

Meet the mighty rhino – an animal that stands out from the rest of the animal kingdom because of the impressive giant horns that grow from its **snout**. This beautiful beast can be found in several different environments, from the open grasslands and **floodplains** of Africa to the green swamps and rainforests of Asia.

A rhino's 'snout' is its projecting nose.

A 'floodplain' is a flat area of land next to a river or stream.

QUIRKY FACT

The name 'rhinoceros' is a combination of two Greek words: 'rhino' meaning nose and 'ceros' meaning horn. For short, a 'rhinoceros' is often called a 'rhino'.



A rhino's range

A rhino's range relates to the different areas that they inhabit or can be found in during their lifetime. Sadly, the population of rhinos has drastically reduced which means that they are currently found in fewer places compared to a century ago. However, the good news is that you can still find these beautiful beasts roaming wild across Africa and Asia in places shown on the map below.

RHINO'S RANGE MAP



Black Rhino
(Population: 5,366 - 5,627)



White Rhino
(Population: 17,212 - 18,915)



Greater One-Horned Rhino
(Population: Approx 3,588)



Sumatran Rhino
(Population: 40 - 78)



Javan Rhino
(Population: 65 - 68)

**Rhino source data: Working document for CITES CoP18*

Surviving their environment

Rhinos look mighty and fierce. This helps them survive in the harsh animal kingdom. Here is how a rhino's body helps to protect it from its surrounding habitat.

Thick-skinned pachyderms

Rhinos are known to have very thick skin of between 1.5 – 5cm thick. Their thick, layered skin provides vital protection from sharp grasses and thorns. In fact, rhinos are also known as '**pachyderms**' because of their thick skin. The word pachyderms comes from the Greek word '**Pakhudermos**' which is made up of two words: **Pakhus** meaning 'thick' and **derma** meaning 'skin'. Other large mammals that are called pachyderms include the elephant and hippopotamus.

Rhinos on high alert!

Although rhinos are known to have poor eyesight, their excellent senses of smell and hearing certainly make up for it.

The ears of a rhino are either cup-shaped or round which helps them to receive the sound and direct it to the inner ear.

A rhino's ears can rotate independently and this enables them to hear sounds from two different directions at the same time. Isn't that cool?

The pointy horn

Rhinos use their horn for a number of reasons. For example, one use of the horn for the male rhinos is to defend their territory and scare off any rhinos trying to trespass. The rhino's horn is also an excellent defense weapon as well as a great shovel, particularly for white rhinos who are trying to unearth small plants with edible roots. Female rhinos, on the other hand, use their horns to help guide and steer their young.

Our three-toed friends

Rhinos have three toes on each foot and fall into a group of animals called 'odd-toed ungulates'. These are hooved mammals with either one or three toes on each foot. The largest of the toes is at the front of the foot, while the two smaller ones are on the sides.

A rhino's scent

Rhinos use their strong sense of smell to detect predators, to communicate with other rhinos and to find waterholes. The cow (female rhino) also uses her sense of smell to keep track of her offspring. It is because of their good sense of smell that the **olfactory system** occupies the largest percentage of a rhino's brain.

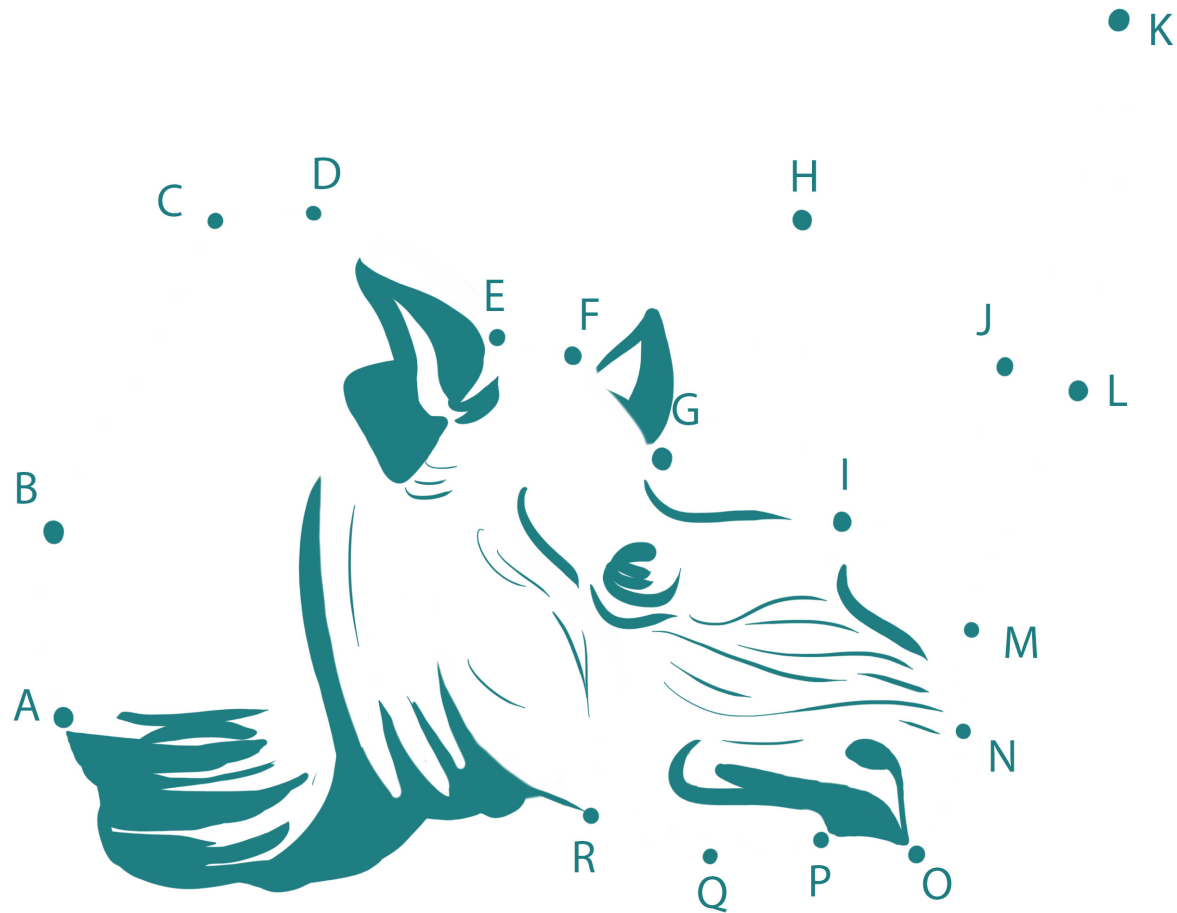
'Olfactory system' is the sensory system used for smelling.



© Valerie Abbott

HOW TO DRAW THE FACE OF A RHINO

Join the dots below to form the face of the mighty rhino!



PACHYDERMS QUIZ

Rhinos are also known as 'pachyderms' because of their thick skin. Tick the other two species below that are also pachyderms.



Zebra



Hippopotamus



Cheetah



Giraffe



Elephant



Lion

THE RHINO FAMILY

There are five magnificent species of rhinos. They **inhabit** Africa and Asia.

Found only in Africa

- Black rhino
- White rhino

Found only in Asia

- Indian rhino
- Javan rhino
- Sumatran rhino

'Inhabits' means to live in or occupy a place or environment.

The black rhino

Black rhinos are found mainly in Eastern and Southern Africa. They are the most endangered of the two African rhino species.



QUIRKY FACT

The black rhino can grow up to 4 – 6ft high and weigh an incredible 1400kg. That's the weight of about 16 men!



There used to be four subspecies of the black rhinoceros.

But sadly the western black rhino was declared **extinct** in 2011, leaving the remaining 3 subspecies below:

- **The southern central black rhino** – This is the most numerous of the black rhino subspecies. They are found in South Africa, Zimbabwe and southern Tanzania. Although they became extinct in Malawi, Botswana, Swaziland and Zambia, they have now been reintroduced into these countries.
- **The southern western black rhino** – This rhino subspecies can be found in Namibia and South Africa.
- **The east african black rhino or eastern black rhino** – This is the subspecies found in Kenya and Tanzania.

Black rhinos are browsers.

They use their 'hook-lipped' mouths to feed on leaves from bushes and trees, such as the thorny twigs of acacia trees.

Black rhinos are one of the fiercest animals on the continent! These ferocious animals are known for their short temper and will charge if annoyed.



Although they look more like elephants, rhinos are closely related to other odd-toed ungulates such as zebras, horses, donkeys and tapirs.

'Extinct' means when a species of animal or plant no longer exists as they have died out.



© Maggy Meyer

The white rhino

The white rhino is the most social of all five rhino species and lives in small groups. They may appear quiet but are highly protective of their calves. There are two subspecies of white rhino:

- **The northern white rhino** – This is the rarest species of the rhino with only two females remaining in the world, currently residing in Kenya.
- **The southern white rhino** – This subspecies is more widespread and can be mainly found in South Africa, Namibia, Zimbabwe and Kenya.

White rhinos are also the largest of the rhino species and, except for the majestic elephant, can grow bigger than any other land mammal in the world. An adult white rhino can grow up to 5.5 – 6.1 feet high and weigh up to 2,300kg. Despite their size though, white rhinos can run as fast as 64km/hr – not bad at all!

While the black rhinos are browsers, the white rhinos are grazers. They use their large square-lipped mouth to graze on grass in the wide, open African plains. In fact, this is probably the biggest difference between the black and white rhino and not, as you may think, their colour. It may sound confusing but both black and white rhinos are actually grey in colour. It is believed that the name given to the white rhino was a misinterpretation by early English settlers of the Afrikaans word 'wyd,' meaning 'wide,' referring to the rhino's square upper lip.

The northern and southern white rhinos

A hundred years ago, there were thousands of northern white rhinos in Central Africa and Uganda. Today the northern white rhino is virtually extinct, while the population of their cousins, the southern white rhino, is at around 18,000 individuals.

But the southern white rhino population was not always this high. In the late 19th century they too were on the verge of extinction. After a century of careful conservation measures, the southern white rhino has now grown in greater numbers than any other rhino species. This makes it the greatest rhino conservation success story to date. As a result, white rhinos have been moved to other countries in Africa, including Kenya, to help increase their population.



© Ian Lemaiyan
White rhinos, Rosie and her calf, Moonshot, at the Lewa Wildlife Conservancy

The greater one-horned rhino

The greater one-horned rhino is also known as the Indian rhino. It is native to India but can also be found in the neighbouring country of Nepal.

This is the largest of the three Asian rhinos, with an adult growing up to 5 – 6.2 ft high and weighing up to 2,100kg. It has grey skin with pinkish skin folds, which tend to make it look as though the rhino is wearing armour. In fact, they have the most folded skin out of all the five rhino species and their upper legs and shoulders are covered in wart-like bumps.



© Wildlife Trust of India

The greater one-horned rhino named Chitwan can be found in Nepal.

The Indian rhino is a great swimmer and mainly inhabits swampy areas and forests. These rhinos will often spend up to 60% of the day wallowing in water and are even accustomed to feeding under water.



QUIRKY FACT

Rhinos don't have any sweat glands and so they wallow in muddy pools to cool off. When the mud dries it also helps protect their sensitive skin from the hard sun rays and against insect bites. Nature is brilliant!

The Javan rhino

The Javan rhino is sometimes referred to as the lesser one-horned rhinoceros. Sadly, Javan rhinos are on the verge of extinction with only about 65 left in the wild.

When someone is 'vulnerable' it means that they are left unprotected and can be easily harmed.



© Hien Nguyen



The Javan rhino is one of the rarest large mammals left on Earth. There are currently none in captivity.

The Sumatran rhino

As it is the only Asian rhino to have two horns, the Sumatran rhino is sometimes referred to as the 'Asian two-horned rhinoceros' or the 'hairy rhinoceros'.

The Sumatran rhino is the smallest of the rhino species. These brilliant beasts live in the remote forests of Sumatra and Borneo in Indonesia and rarely **venture** out. They are very shy and rarely seen in the wild. Like the Indian and Javan rhino they enjoy wallowing in muddy waters and are good swimmers.

To 'venture' means to go off on a risky or dangerous journey.



Although they are the smallest of all the rhino species, they can still grow up to 4 ft high and weigh as much as an impressive 1,000kg.



QUIRKY FACT

The Sumatran rhino is the closest living relative to the woolly rhino which was declared extinct over 10,000 years ago.

MEET NAJIN AND FATU

Meet Najin and Fatu – the last two surviving northern white rhinos. These two female rhinos currently live at the Ol Pejeta Conservancy in central Kenya but belong to the Dvůr Králové Zoo in the Czech Republic, Europe.



© Tim Mwangi

Najin

Sudan lived with the last two female rhinos of his species on a reserve and had to be protected by armed rangers 24 hours a day. Unfortunately, neither Najin or Fatu can have babies, and with no male northern white rhino left, this rhino subspecies will become extinct when both females die.

Najin is the daughter of the late Sudan, who, as the last remaining male northern white rhino, was the rarest mammal in the world. Sadly, Sudan died due to old age at the Ol Pejeta Conservancy in 2018.

Back in 2000, Najin gave birth to Fatu. Fatu is actually the last known northern white rhino to be born. Nine years later, in 2009, Sudan, Najin and Fatu were transported to Kenya from the Czech Republic in the hope that the natural habitat would help them reproduce.



© Tim Mwangi

Fatu, one of the last two remaining northern white rhinos left in the world at the Ol Pejeta Conservancy in Kenya.

The only hope for northern white rhinos lies in artificial techniques of reproduction such as **in vitro fertilisation**, embryo transfer or different forms of genetic engineering. These techniques have never been performed on rhinos before. This makes efforts to save the species challenging and complicated.

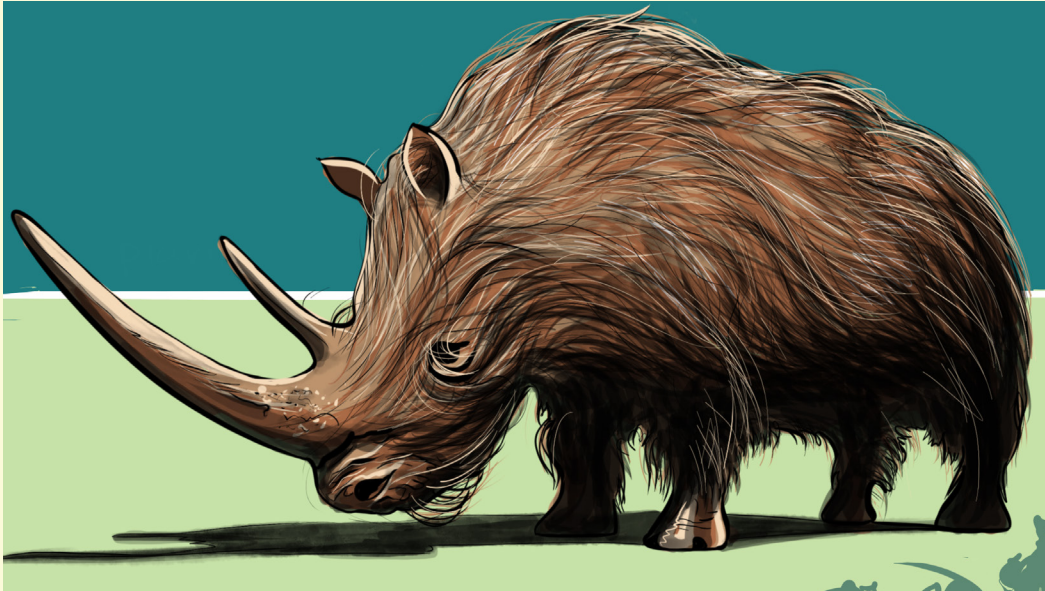
'In vitro fertilisation', also known as 'IVF', is a technique used to help people and animals get pregnant. It is when an egg and a sperm are manually combined in a lab to form an embryo (a fertilised egg) which is then returned to the female's womb to grow and develop.



Sudan spent the last few years of his life at the Ol Pejeta Conservancy in Kenya. He died in March 2018.

THE WOOLLY RHINO QUIZ

Which rhino species is most closely related to this animal?



Tick the correct answer.



Indian rhino



Javan rhino



Sumatran rhino



Black Rhino



White rhino

KNOW YOUR RHINO

1. What are the characteristics that differentiate the five different species of rhinos?

Characteristic	Black Rhino	White Rhino	Indian Rhino	Sumatran Rhino	Javan Rhino
Maximum weight					
Maximum height					
Horns					
Skin					
Habitat					

2. In which national parks in Kenya can you find rhinos?

a) _____ b) _____ c) _____

3. Name five countries in Africa apart from Kenya where you can find rhinos.

a) _____ b) _____ c) _____

d) _____ e) _____

4. All rhinos have two horns on their nose. True or false? _____

5. The two remaining northern white rhinos are named _____ and _____

Meet the rhino herd

Some rhino species are solitary. This means that they like to avoid each other and spend most of their lives alone. However, you can also find rhinos, particularly white rhinos and black rhinos, in a group known as a 'crash'. A crash usually consists of a female rhino, known as a 'cow', and her calves, although you can sometimes find other adult females too.



A black rhino named Anita with her calf, Anna, at the Lewa Wildlife Conservancy.

Male dominance in rhinos

Male rhinos are also called bulls. Among the bulls, there is a 'dominant' male and a 'subordinate' male. The dominant males are the ones who mate with most of the cows and win most of the territorial battles. The subordinate males are the young bulls who must be **submissive** to the dominant bulls, otherwise they might get killed or injured in an aggressive territorial battle.

Rhinos reach sexual maturity at 6 to 7 years but male rhinos tend not to mate until they are 10 to 12 years old. A rhino calf stays with its mother for 2 to 3 years before setting off to find a territory of its own. Female rhinos will usually wait until their calves have left them before mating again.

Depending on the species, the gestation period of rhinos, which is the length of pregnancy, is between 15 and 18 months. That is about twice as long as a human pregnancy.

'Submissive' means 'obedient.' Subordinate males need to be obedient to dominant males in order to avoid any trouble.

Rhinos are territorial

Rhinos defend the area they consider belonging to them from other animals. In fact, if an intruder crosses a rhino's territory the rhino will usually charge blindly at them (given their poor eyesight) to scare them away.

Weird but wonderful: How rhinos communicate & mark their territory

Rhinos have very poor eyesight and so one of the ways both male and female rhinos keep in touch is through scent marking. They leave their scent on various objects in their environment to let other rhinos know that they are there.

A rhino can mark its territory by urine spraying. Male rhinos also do this to mark their territories. They spray their urine at intervals on trees and bushes to claim their ground.

Female rhinos tend to use urine spraying to communicate with nearby bulls that they are in **estrus**.

'In estrus' is when an animal is 'on heat'. It is the time when a female animal is looking for a male to mate with.

Another way rhino scent mark is by rubbing their head against rocks or trees. Black rhinos in particular mark their territory by leaving a distinctive scent from a gland located on their skin.



© Paula Kahumbu - WildlifeDirect



QUIRKY FACT

Rhinos have a communal toilet where they all let out their droppings. This dumping ground is called a *midden*. They use it to communicate messages to each other. One sniff and a rhino can know the age, sex, general health and reproductive status of other rhinos in the same area. Talk about having a great sense of smell!

BULL OR COW?

What are the main differences between a Bull and a Cow?



Characteristics of a female rhino	Characteristics of a male rhino

A RHINO'S BEHAVIOUR



This image shows a white male rhino spraying urine on the grass. Can you tell what the male rhino is really doing?



This image shows a white rhino sniffing dung at a midden. What do you think these poop piles are used for?

A rhino's diet

Rhinos are herbivores, meaning that they consume a pure plant-based diet. They can be either grazers or browsers. Grazers are animals that mainly feed on grass, while browsers are those that mainly feed from bushes, shrubs and trees. While different rhino species eat slightly different types of food, a few items that you'll find on a rhino's menu include grasses, shoots, leaves, fruits, berries and flower buds.

Although rhinos depend purely on plants, they need a lot of food to take them through the day – up to 50kg of vegetation a day to be precise. That is the same weight as a newborn calf! But while they consume a lot of vegetation, they also **egest** a lot of it out too. They can produce up to 23kg of dung a day.



To 'egest' means to discharge undigested material from the body.

Rhinos need to feed every single day to survive. However, they can go for four to five days without water. This is because they get most of the water they need from the moisture in the plants that they feed on.



Did you know that the dung of each individual rhino has a unique smell?

The African rhinos' feathery friends

There is one creature rhinos in Africa are inseparable from – the oxpecker. You will often see an oxpecker perched on a rhino's back. These small birds, also known as 'tick birds,' share a perfect **symbiotic** relationship with rhinos. The oxpecker gets a free dinner by eating ticks and other parasites that live on the rhino's thick skin, while the rhino gets free pest control.

A 'symbiotic' relationship is when two different species live together for mutual benefit.

The little tick birds can be more useful than just eating ticks off a rhino's back. If the birds sense danger, they fly off the rhinos' backs and this warns their larger friends of any nearby threats.



QUIRKY FACT

Did you know that oxpeckers can also be found perched on the backs of zebras and other large wild animals? They seem to share a similar relationship with these birds too.

© Rio The Photographer

Red-billed oxpeckers hitch a ride on a black rhino's back.

WHAT'S ON THE MENU?

1. Rhinos are herbivores. What does being a herbivore mean?

2. Name three different specific types of food that rhinos feed on.



© Valerie Abbott

a) _____

b) _____

c) _____

3. Name the African rhino species that is a grazer:

4. What is the difference between a grazer and a browser?

5. Rhinos can eat up to _____ kg of food in a day.

HOW RHINOS ADAPT TO THEIR ENVIRONMENT

1. On a hot sunny day, where are you most likely to find a rhino and why?

2. What senses do rhinos use to search for water?

3. What is the main difference between the white and the black rhino?



4. List two ways in which a rhino can know that there is an intruder nearby.

5. Name three ways the rhino uses its sense of smell.

HUMAN-RHINO CONFLICT

While poaching is by far the biggest threat that rhinos face today, habitat loss and human-rhino conflict is also causing the population of rhinos to fall. As the human population in Asia and Africa increases, more land is needed for human settlements, farming and development. As a result, rhinos are being squeezed into small pockets of land. In some places they are forced to live closer to humans than ever before.

Sadly, when people and rhinos come into direct contact with each other, things do not always end well. Rhinos in India, for example, may trample and eat farmers' crops and farmers may lose their property and sometimes even their lives. As a result, farmers sometimes kill rhinos in **retaliation**.

'Human-rhino conflict' is when humans and rhinos battle for the same living food and space.

One way to reduce human-rhino conflict is to help ensure that rhinos live in protected areas away from human settlements. There are many success stories where rhinos that live too close to humans have been translocated to other secure rhino habitats.

When people in communities that live close to rhinos see one, they should call the Kenyan Wildlife Service's helpline or the nearest rhino sanctuary and share information on the sighting. The rhino can then be safely returned to the protected area that it came from. In this way people are protected from rhinos and rhinos are protected from people.

'Retaliation' is the act of hurting someone because they have hurt you or someone else.



© Fyre Mael

KENYA'S BLACK RHINO CRISIS

To fully understand why the black rhino in Kenya has become so endangered, we need to rewind back to the 1970s. During this time, black rhino numbers declined by about 97% across Kenya - from 20,000 in 1970 to just 250 in 1983.

The main reason why black rhino numbers fell so suddenly was because of the demand in rhino horn in the Middle East and Asia. Thankfully, in response to this tragedy, the government of Kenya put measures in place to help stop the decline of this magnificent animal. Rhino sanctuaries have been set up across the country to help protect black rhinos. Rhinos are now managed in small, often fenced and well-protected areas. As a result of this **initiative**, rhino numbers are steadily recovering. There are now estimated to be over 1,110 rhinos (of which 690 are black rhinos) in Kenya.

An 'initiative' is a new plan or project done to achieve something or solve a problem.



SAD FACT

Many people, particularly in Asia, wish to own rhino horn to use in traditional medicines even though the horn is made of keratin. Others wish to own rhino horn to offer as a rare and expensive gift. Sadly, these uses, which are relatively easy to replace with other items, may lead to the extinction of rhinos!

Kenya's black rhino roams the Maasai Mara National Reserve

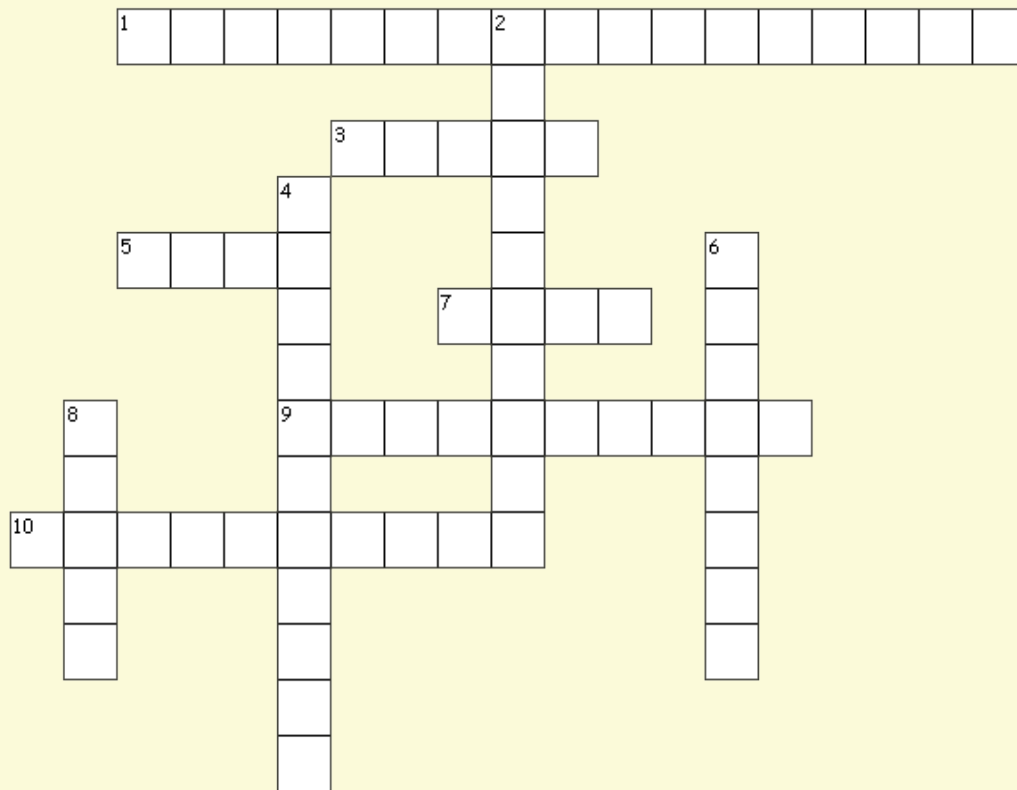
How well do you know the magnificent rhino? Let's test your knowledge with this rhino crossword puzzle!

Across

1. Kenya's native rhino subspecies.
3. The name of the last male northern white rhino who sadly died in 2018.
5. The main part of a rhino that is sold on the black market.
7. The true colour of black and white rhinos.
9. The name of a particular tree that the black rhino feeds on.
10. One of the most critically endangered Asian rhinos that exist today.

Down

2. The most endangered of the two African rhino species.
4. Another name for the greater one-horned rhino.
6. The name of the bird you are most likely to find perched on a rhino's back.
8. The word that describes a group of rhinos.



Can you unscramble each of the clue words? Once you've done this, take the letters that appear in circles and unscramble them for the final message in this mighty rhino double puzzle.

Good luck!

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Whose mouth?

Which picture shows the mouth of a white rhino? Which one shows the mouth of a black rhino?



© Fyre Mael

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© Fyre Mael

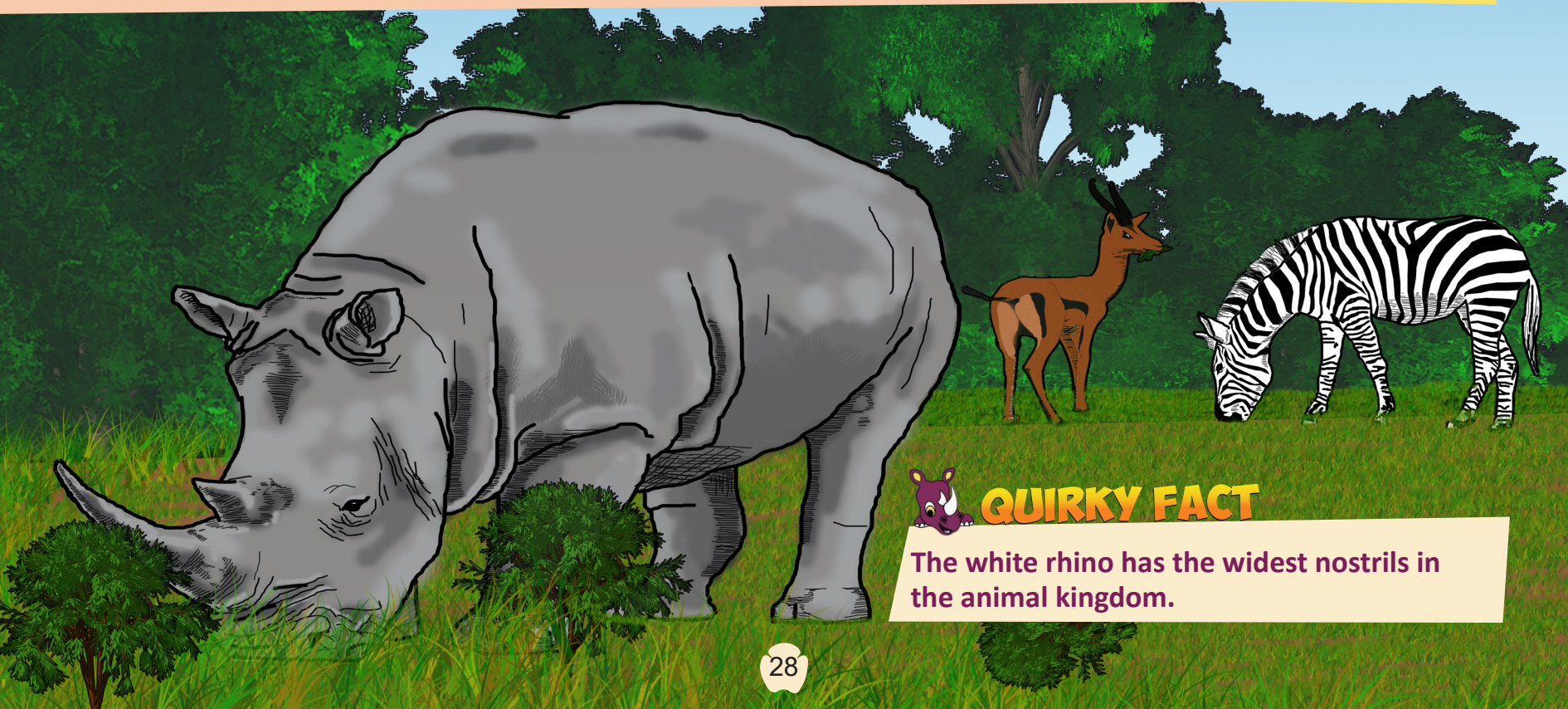
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WHY RHINOS MATTER

Some animals are especially important in raising awareness and support for biodiversity conservation. The rhino is one of them and is therefore known as a 'flagship species'. If we protect rhinos, we protect their habitat and that of all other animals that depend on it.

Black rhinos are also **keystone** species because they help forested areas trimmed when they browse. They create paths for smaller grazing animals like zebra, antelope, and wildebeest. White rhinos, as well as other grazers, help to trim the grass and stop other vegetation, like forests, from taking over.

A 'keystone species' is an organism that has a very important role in an ecosystem and helps hold it together.



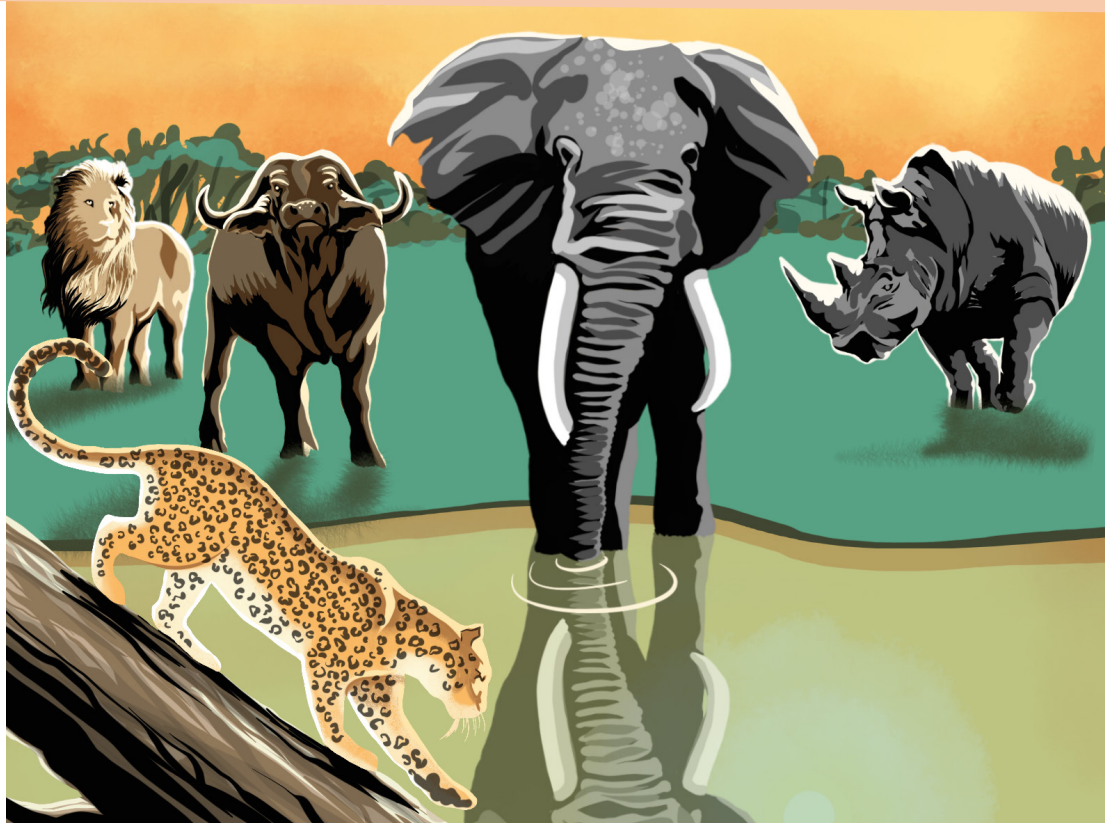
QUIRKY FACT

The white rhino has the widest nostrils in the animal kingdom.

THE BIG FIVE

Rhinos are also one of the Big Five animals that tourists like to see in national parks and game reserves. They are therefore vital to attracting people to Kenya and other African countries. Everyone hopes to catch a glimpse of this animal in the wild!

By protecting rhinos, we are not only saving an iconic and beautiful animal but we are also helping protect all those other animals and plants that depend on them!



QUIRKY FACT

Although the Big Five animals are well known, there are also five amazing wild animals known as the Little Five. These are the elephant strew, ant lion, rhinoceros beetle, buffalo weaver and the leopard tortoise.

THE POACHING CRISIS

One of the biggest threats to rhinos today is illegal poaching for rhino horn. In Asia, a rhino's horn is used in traditional medicine, believed to cure ailments such as cancer, fever and infections, even though this has never been scientifically proven. The horn is also seen as a status symbol in countries such as Vietnam and China. But in reality, rhino horn is made of nothing but keratin – the same material that makes up our hair and fingernails. And if poaching continues at the current rate, rhinos can very well be wiped out and become extinct.



1. Why do you think rhinos are so important to the ecosystem?

2. What will happen to the following if rhinos were eradicated from the world?

a) Future generations

b) The ecosystem

c) Kenyan economy

3. What do you think can be done to prevent the illegal rhino horn trade in Kenya?

4. Who do you think is to blame for the continued rhino horn poaching in Kenya? Give a reason for your answer.

5. Is it possible to stop poaching? Why or why not?

6. Write down three things that you can do to save rhinos and increase their numbers?

7. What challenges do you think you will face when implementing your ideas? How can you overcome them?

OUR RHINO WARRIOR

In Kenya, we have many rhino warriors. One of them was the late rhino scientist, Ian Lemaiyan. Sadly, Ian lost his life shortly after this interview was taken. At the time, he was dedicating his life to defending Kenya's rhinos. He used to work at the Lewa Wildlife Conservancy in Northern Kenya but then moved on to work with Kenya Wildlife Service where he carried out air patrols to keep rhinos and other wildlife safe.



© Ian Lemaiyan

Ian Lemaiyan alongside Kitui, a black rhino that was rescued in March 2014 and taken to the Lewa Wildlife Conservancy in Kenya.

An interview with Ian Lemaiyan

What made you want to become a rhino warrior in the first place?

Since I was a young boy, wildlife has been a great part of my life. My late mother used to take me to the Nairobi Orphanage over the weekends. I dreamt of riding in the Kenya Wildlife Service's bus and being one of the staff who cared so much about wildlife.

This love grew and grew. When I was old enough to go to college, I chose to study animal science. That led into the field of wildlife. Eventually I became a volunteer at Kenya Wildlife Service. During my time there, I interacted with a male white rhino and became very fond of him.

I read more about rhinos and was so sad to learn that we had lost so many to poaching. All I wanted to do was to join the group of people who were helping to bring them back.

How has your work helped keep rhinos safe?

For five and a half years, I worked as a rhino scientist at the Lewa Wildlife Conservancy. I took part in tracking and monitoring rhinos and collecting data on them. I also reported any sick rhinos to the vet who helped cure them.

I shared my knowledge about monitoring the rhino population in Lewa with those in other wildlife protected areas. I became involved in rhino strategy planning to ensure that the right **protocols** were made to protect and monitor these amazing gentle giants.

During that time, and with help from friends, I was able to obtain a private pilot's licence. I started security flying for rhinos.

What does your day-to-day job look like?

As a rhino scientist at the Lewa Wildlife Conservancy my roles included:

1. Entering rhino sightings into the National Rhino Sighting Database.
2. Patrolling in an aeroplane every morning and evening to locate and record rhino sightings.
3. Patrolling on a motorbike on the ground to report rhino sightings.
4. Patrolling on foot in the forest areas where it's harder to spot rhinos.

'Protocols' relate to a system of rules that explain the correct behaviour and methods that need to be followed in a formal situation.



© Credit Fyre

5. Photographing individual rhinos for identification leaflets.
6. Writing reports for the Lewa Wildlife Conservancy and KWS rhino programs.

I am now an Assistant Security Administrator and Pilot with the Northern Rangelands Trust (NRT) where I carry out more aeroplane wildlife patrols in Northern Kenya. I ensure that rhinos and other wildlife, as well as their habitat, remain protected.

What would you say has been your biggest achievement as a rhino warrior?

My biggest achievement so far has been helping raise awareness about rhinos, and in turn, helping raise funds to protect them. I have done this through social media and talks that I deliver to students from all over Kenya when they visit our education centre. I feel moved when children come back to me and say, “I want to be a rhino protector and fly, just like you”. My only hope is that they get to do it, because our rhinos surely need them.

What do you love most about rhinos?

I love the fact that each rhino has its own distinct personality. It is because of this that I can tell the naughty rhinos, happy rhinos and the tough mums and dads in the population. This makes you develop a love for each individual rhino and not just for the species as a whole.

Sadly, we know that rhinos are in danger because humans kill them for their horns. How can each one of us play a role in helping to protect these magnificent animals?

There's so much that we can do to play a role in the protection of rhinos, including the following:

1. Create or join groups and clubs to raise awareness about the poaching crisis and the myths and misconceptions about rhino horns which encourage poaching.
2. Volunteer to provide information about poaching or any suspicious activities that may seem harmful to wildlife.



Protesters in Nairobi at the Global March 2019

3. Do not buy or trade in illegal wildlife products from endangered animals.
4. Volunteer with and provide funds to trustworthy organisations that are protecting rhinos and taking part in conservation themed activities.
5. Find out everything you can about rhinos. Become a voice for the voiceless to help strengthen Kenya's wildlife policies to better protect our wildlife and their threatened habitats.
6. Run major education campaigns to make Kenyans aware that our wildlife belongs to us. It is our heritage.
7. Encourage everyone to watch TV shows like Wildlife Warriors.
8. Be the change we want to see in others so that we can change the people around us.



Be a Rhino Scientist

If you visit a national park or conservancy fill in this questionnaire. Don't forget to take your camera with you and take photographs of rhinos. Date of visit: _____ Location: _____ Place: _____



© Rio the Photographer

If you can't visit a game park, use this photograph to answer some of the questions below.

STUDY A GROUP OF RHINOS

1. What type of habitat is it? (For example, a floodplain, grasslands, in the bushes or by a body of water)

2. Select a group of 4-7 white rhinos - which species is this and which sexes? Give reasons for your answers.

3. Find an adult and calf together - what do you notice about them?



STUDY A SINGLE RHINO

1. Select one rhino. What rhino species is it? What is its name? If it doesn't have a name you can give it one and write it down

2. Is the rhino male or female? _____

How can you tell? _____

3. Is the rhino a calf, a young adult or adult? _____

How can you tell? _____

4. Describe the behaviour of the rhino. Do you think it feels lively, tired, playful, relaxed or nervous? Give a reason for your answer.

5. Does the rhino have any distinctive markings on its body? Describe what you see.

HOW TO SAVE RHINOS

Everyone has a role to play in protecting the rhino, each one of us can become a rhino warrior by:

1. Spreading the word about the threats they face.
2. Reporting to the KWS Helpline anything suspicious regarding rhino poaching or illegal trading activities.
3. Supporting or joining organisations whose work is to protect rhinos.

Many organisations and individuals around the world have taken up the global fight to help protect the rhino. Here are just a few organisations doing incredible work to save this mighty animal.

Organisation	Website
WildlifeDirect	www.wildlifedirect.org
African Wildlife Foundation	www.awf.org
David Sheldrick Wildlife Trust	www.sheldrickwildlifetrust.org
East African Wild Life Society	www.eawildlife.org
Big Life	www.biglife.org
Kenyans United Against Poaching	www.kuapo.org
Save the Rhino International	www.savetherhino.org
Kenya Wildlife Service	www.kws.go.ke
Ol Pejeta Conservancy	www.olpejetaconservancy.org
Lewa Wildlife Conservancy	www.lewa.org
Helping Rhinos	www.helpingrhinos.org

If you can help spread the word about the importance of rhinos and how they are worth more alive than dead, we will be one step closer to saving these magnificent mammals!

When on safari

Seeing a rhino in a national park or game reserve is an item on everyone's bucket list. Sometimes, however, people may get too close to rhinos, which may cause the animal to charge. This happens especially with black rhinos.

The more we can keep our distance from rhinos, the better. These are wild animals and should be left undisturbed in their natural habitat.

When you're on a game drive and a black rhino approaches you, please remain calm. If it is at a distance, switch off the engine of the car. Avoid any sudden movement if the rhino is less than 50ft away.

If the rhino charges at you from about 100 metres away, drive off as fast as possible.

If you are on foot (which isn't advisable unless you are accompanied by a trustworthy ranger), climb the nearest tree because rhinos are not tree climbers.



QUIRKY FACT

Rhino horn is made of keratin – the same stuff that forms our finger nails and hair!



ABOUT WILDLIFE WARRIORS

Wildlife Warriors is a Kenyan documentary series produced by WildlifeDirect. The series tells the incredible tale of Kenya's endangered wildlife and all the dedicated conservation heroes out there protecting it. The show aims to increase awareness of conservation issues in Africa, to encourage people to visit the national parks and to help protect our endangered wildlife.

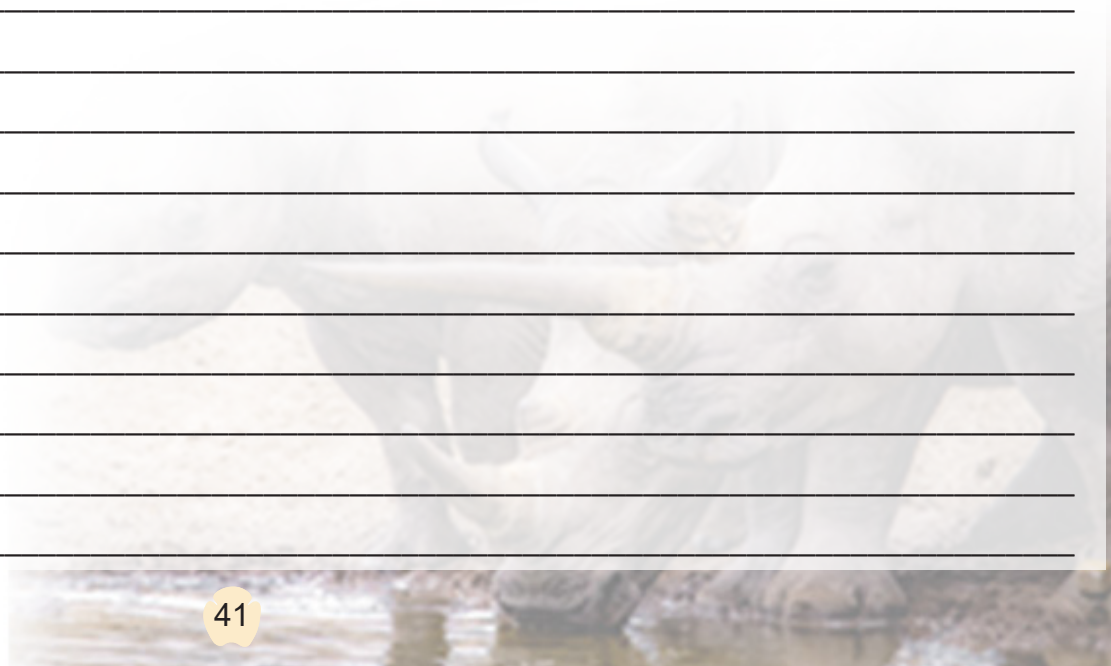
My Amazing Rhino book is based on the Wildlife Warriors Lewa Rhinos episode that aims to inspire, to educate and to urge people to take action and defend Africa's rhinos.



MY AMAZING REVIEW OF THE WILDLIFE WARRIORS SHOW

My Name: _____ Age: _____ Country: _____

Email: _____



YOUR VERY OWN RHINO FILL-IN STORY

Fill the blanks in this passage to create your own story. Find the right words by using the clues provided in the brackets below. When it is done, do not forget to read it out aloud to a friend!

My family and I set off on the most incredible safari to the _____ (name any National Park in Kenya). Before I left, I wrote a list of all the _____ (another word for 'living creatures') I wanted to see on safari. The mighty rhino was top of my list.

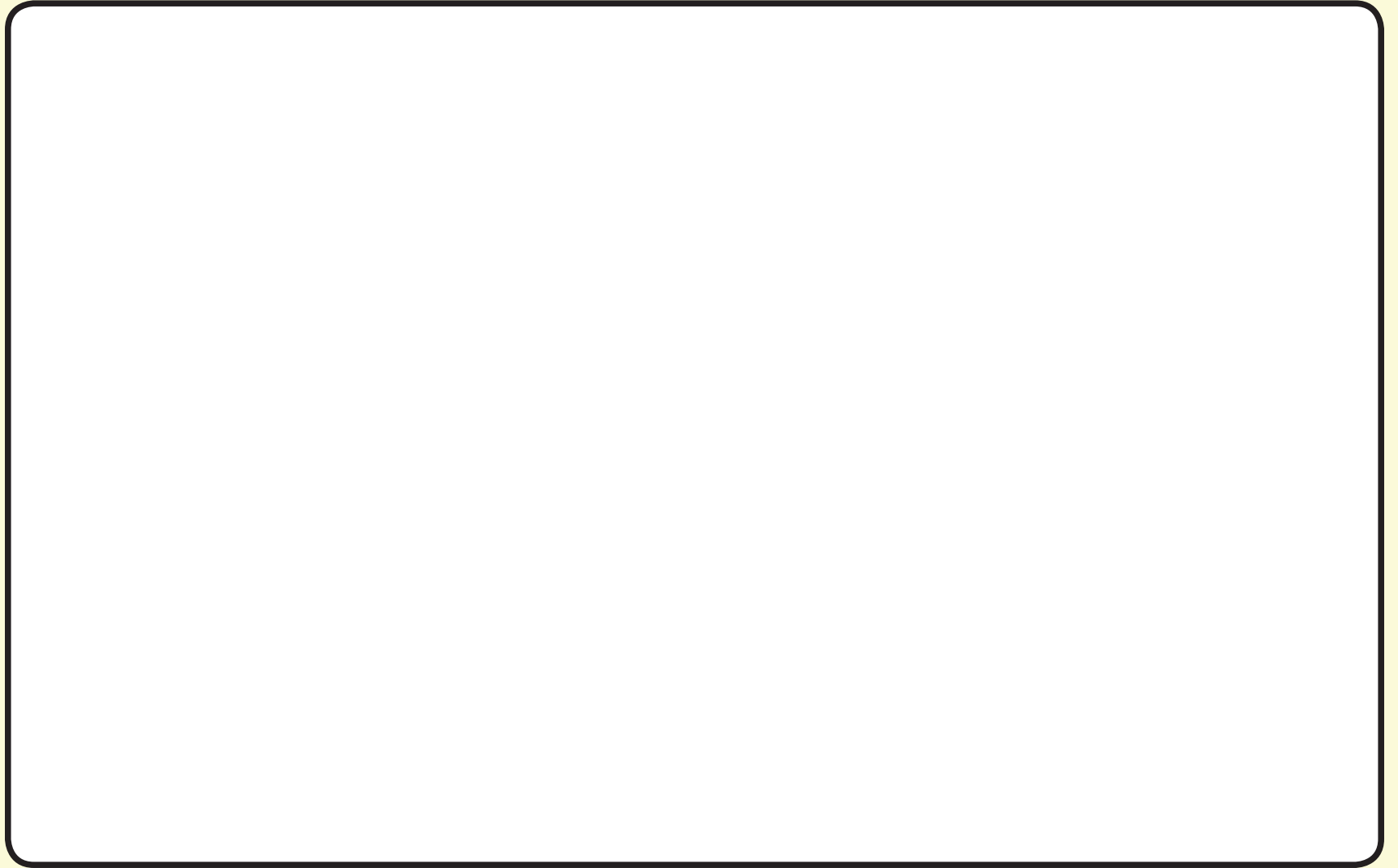
It was our fourth and last day on safari but we still had no luck spotting a rhino. We had almost given up hope when our guide on the game drive heard a rustling sound coming from behind a dense _____ (a plant that is smaller than a tree). "Over there," he said.

Standing 4ft tall, with the most beautiful _____ (that unique part of a rhino that grows from its nose) and accompanied by around five _____ (a rhino's feathery friends) perched on his back was my favourite animal in the whole wide world.

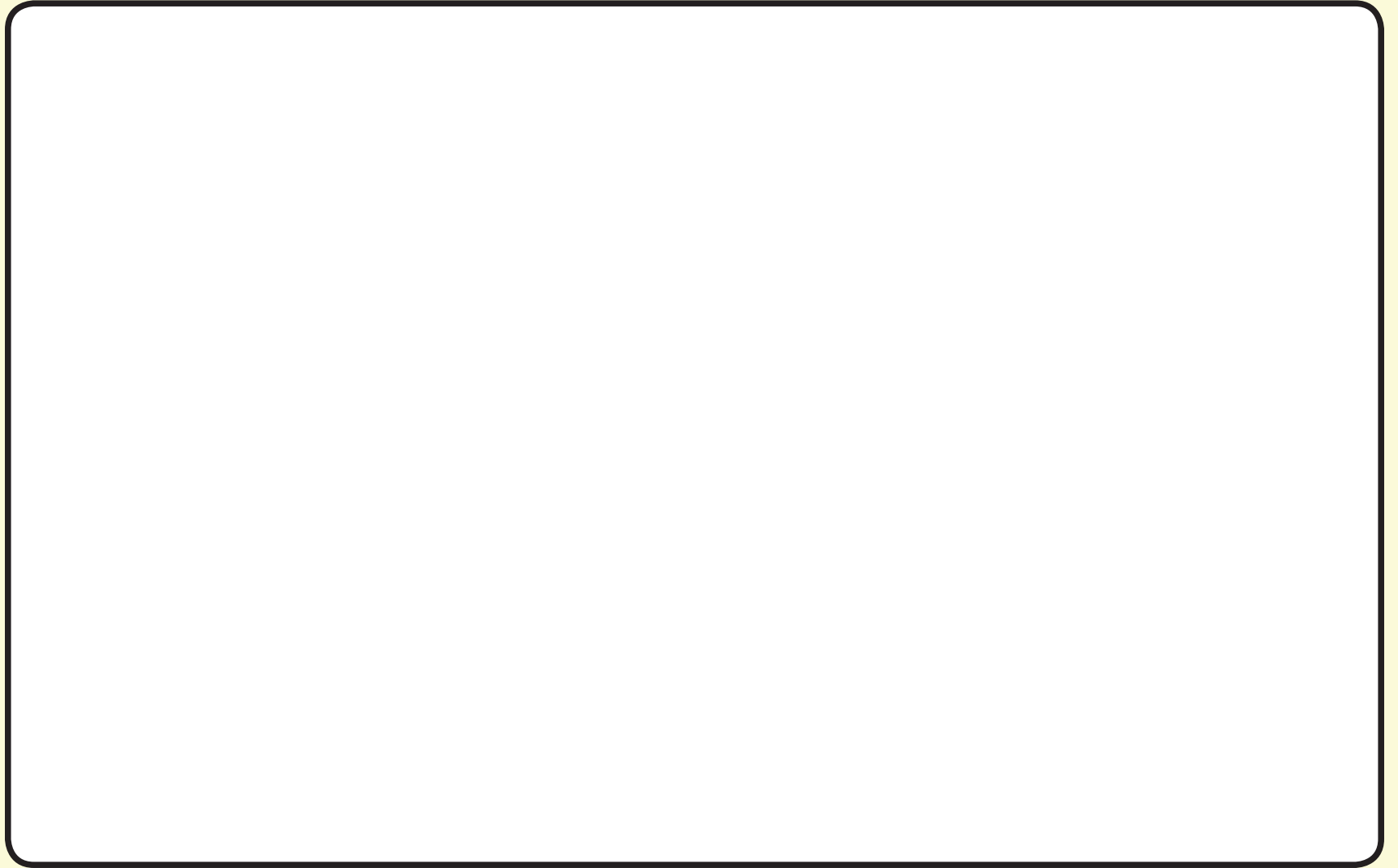
He was the mightiest, most majestic _____ (name one of the two species of rhino found in Africa) I had ever seen. He was so much more magical in real life than in pictures. After having laid eyes on this incredible animal in real life, I now know why people dedicate their lives to protecting this _____ (another word for 'threatened') animal, and why I am going to do the same!



ILLUSTRATE YOUR STORY



DRAW A WHITE RHINO

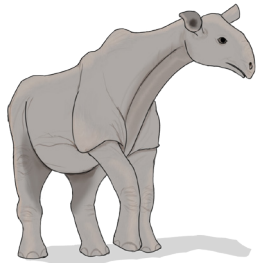


DRAW A BLACK RHINO



THE RHINO FAMILY TREE

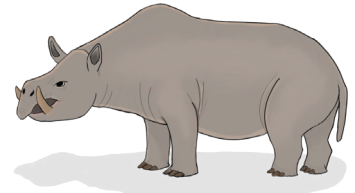
Modern day rhinos have an impressive ancestry. Let's take a look at just a few of these awesome animals that roamed the Earth over 50 million years ago!



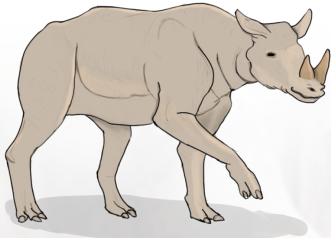
Paeaceratherium

Meet the **Paraceratherium** - standing 5m tall and weighing a whopping 20 tonnes, this prehistoric giant walked the Earth over 30 million years ago and was the largest land mammal to ever live.

The **Chilotherium** existed some 23 million years ago and was described as a 'truly hippo-like rhino.' It spent a lot of its time in the water, eating grass and other vegetation along the riverbanks.



Chilotherium



Diceratherium

At the same time as the Chilotherium, lived the **Diceratherium**. These rhinos had two horns, but not one in front of the other as today's modern rhinos, but rather, the horns stood beside each other on the rhino's nose.

Around 2.5 million years ago, the **Elasmotherium** appeared on the scene. It weighed up to twice as much as today's modern rhino and is often known as the Siberian unicorn, thanks to its giant single horn.



Elasmotherium



Woolly rhino

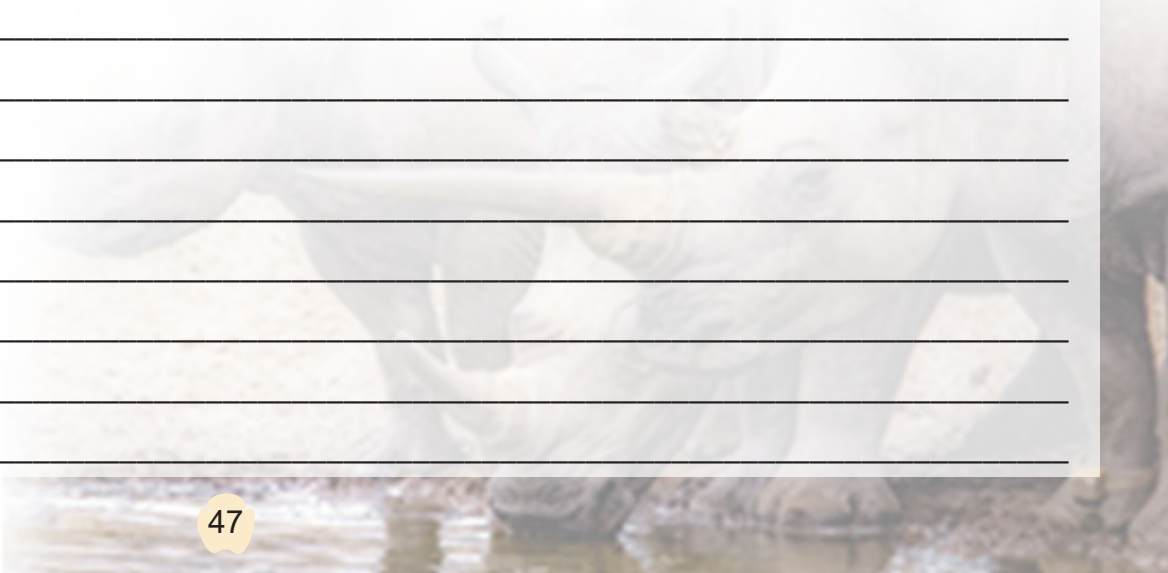
As Earth was undergoing a full-scale Ice Age, rhinos began developing thick woolly coats. This marked the arrival of the **woolly rhino** which walked our planet around 10,000 years ago. A rapid change in the climate was sadly a huge part of the woolly rhino's extinction.

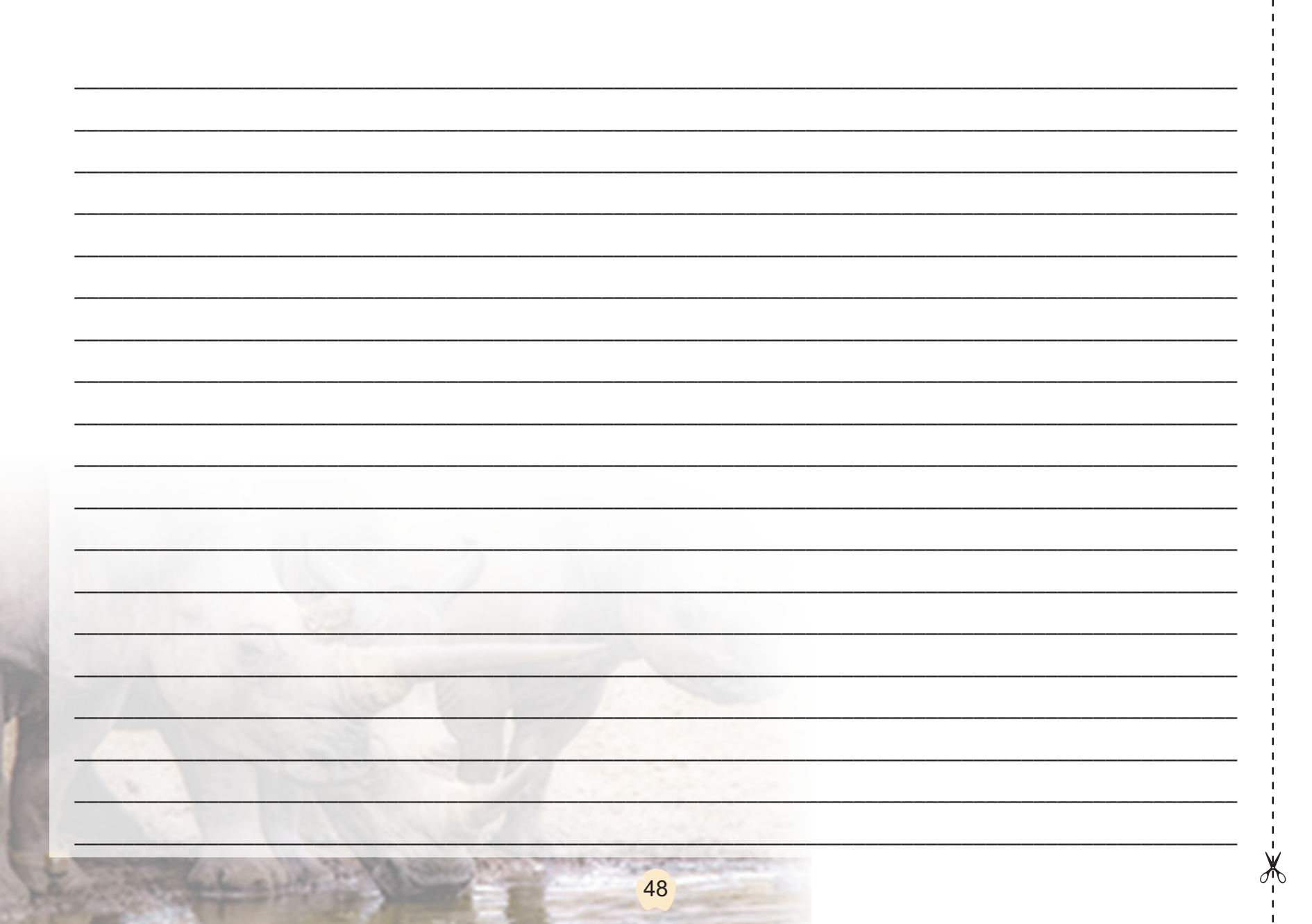
Today just five rhino species exist across Africa and Asia. Their biggest threat are humans as they continue to poach them for their horns. Unfortunately, rhinos are no longer found in abundance across the world as they once were, which is why they need our help more than ever before!

MY AMAZING ESSAY, POEM OR STORY ABOUT THE RHINO

My Name: _____ Age: _____ Country: _____

Email: _____

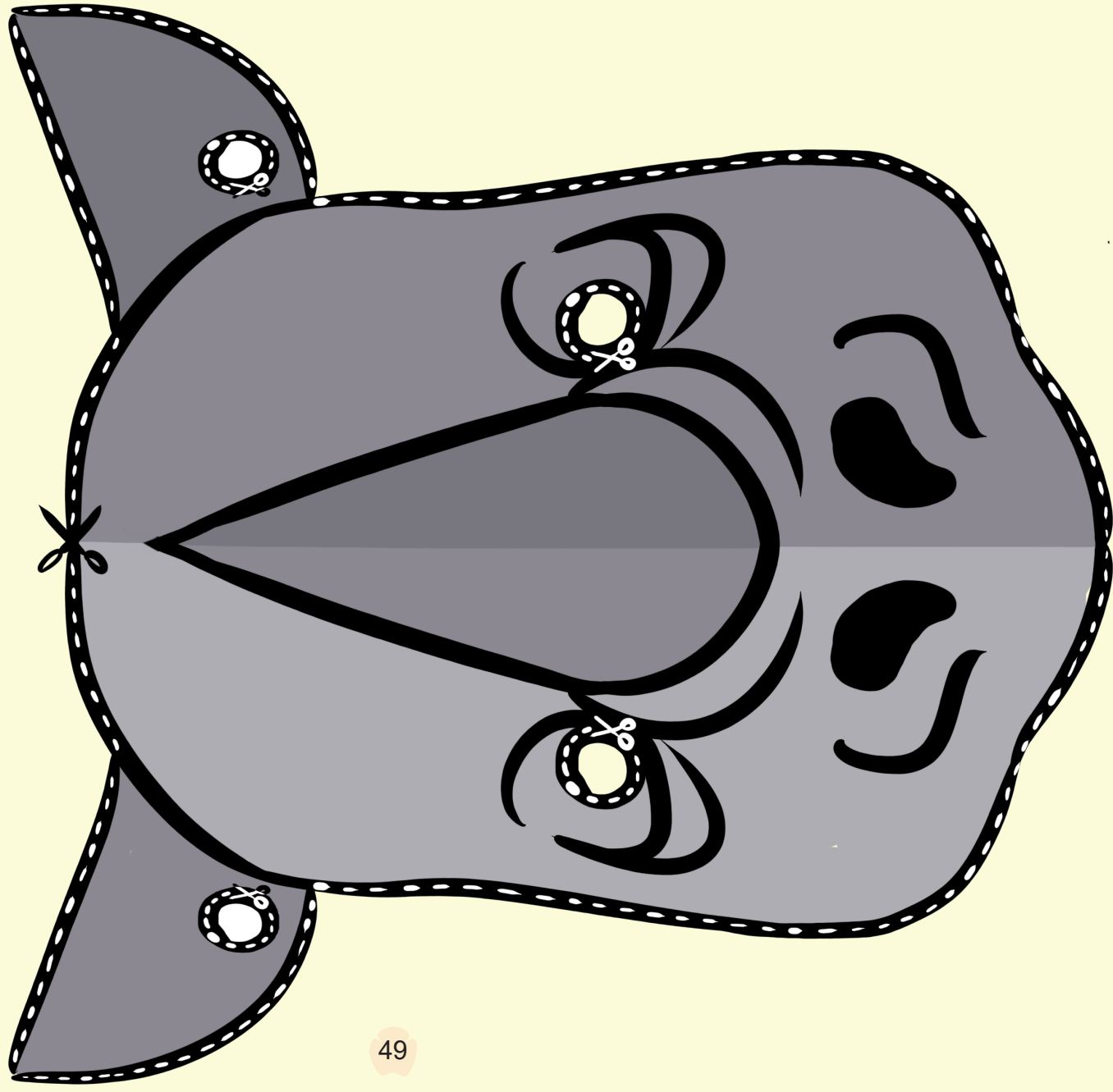






YOUR VERY OWN RHINO MASK

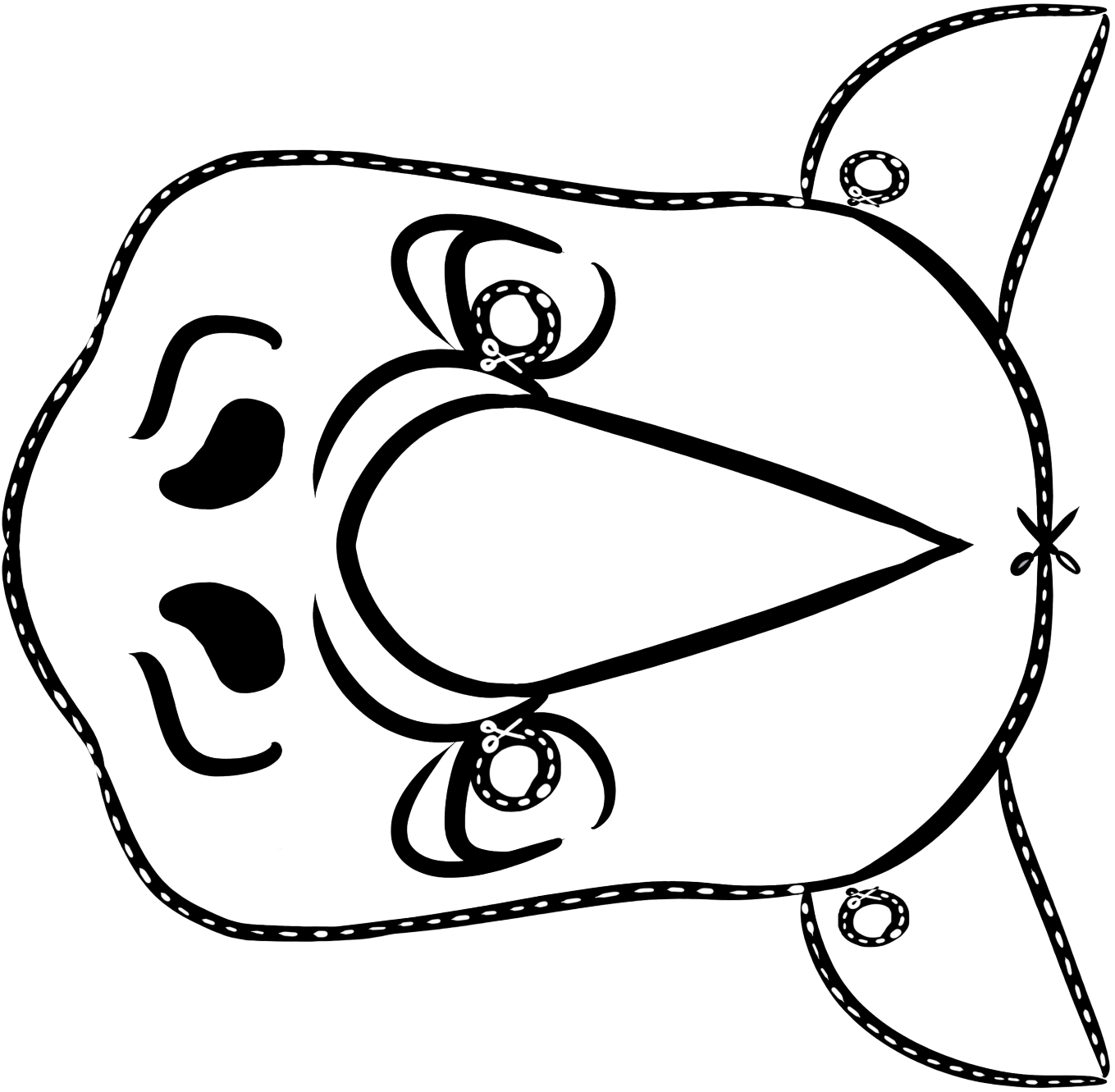
Transform yourself into a majestic animal with your very own rhino mask! All you need to do is carefully cut out the rhino mask below, make two holes on either end of the mask and very carefully tie it with a string or elastic band. We hope you enjoy your incredible pachyderm transformation!





COLOURE YOUR OWN RHINO MASK

Your rhino mask is now two-sided. Cut small holes in the ears for string to tie the mask around your head.



ANSWERS

A rhino's family:

Black rhino, White rhino, Indian rhino, Javan rhino and Sumatran rhino.

Bull vs. Cow:

1. The bull has a larger body than a cow.
2. The cow's front horn is often longer and thinner than that of a bull.

The woolly rhino:

The Sumatran rhino.

Pachyderms:

Hippopotamus and Elephant.

My Rhino Crossword Puzzle:

Across: Eastern black rhino, Sudan, horn, grey, acacia tree, Javan rhino;

Down: Black rhino, Indian rhino, oxpecker, crash.

A rhino's behaviour:

1. The male rhino is spraying urine on the grass to mark his territory.
2. Middens are used by rhinos to communicate messages to each other.

How rhinos adapt to their environment:

1. You can find rhinos wallowing in the muddy pools to cool off. When the mud dries it also helps protect their very sensitive skin from the hard sun rays and against insect bites.
2. Rhinos use their sense of smell to find waterholes
3. The shape of their mouth. The black rhino has a 'hook-lipped' mouth while the white rhino has a 'square-lipped' mouth.
4. To detect whether a predator is around, to communicate with other rhinos and to find waterholes. The cow also uses her sense of smell to keep track of her offspring.
5. A rhino can detect if there is an intruder nearby by using its excellent sense of hearing and/or sense of smell.

The mighty rhino double puzzle:

pachyderms, mammals, Indian rhino, black market, Fatu, Big Five, browsers, grazers.

Hidden Word: Rhinoceros

What's on the Menu

Any 3 of the following:

Grasses, shoots, leaves, fruits, berries and/or flower buds. (1)

Grazers eat on grass while browsers feed on leaves from bushes and trees.

White rhino

Black rhino; White rhino

50kg

Sumatran rhino

Why rhinos matter:

Rhinos are known as flagship species as they are one of the animals chosen to help raise awareness and support for biodiversity conservation. They are also keystone species as they play a pivotal role in the ecosystem and help keep it healthy and balanced.

Zebra, antelope and gazelle.

Rhino's dung enriches the soil and helps spread seeds which will eventually grow into plants.

Your very own rhino fill-in

Any National Park in Kenya; Animals; Shrub/bush; Oxpecker; Horn; Black or White rhino; Endangered



© Rio the Photographer

Only we can save the rhino.