

1a Wild Animals Live in the Environment



Look very carefully at this picture. What animals can you see in this environment?

A RHINO has two horns on its face.

A RHINO holds its tail up in the air when it runs.



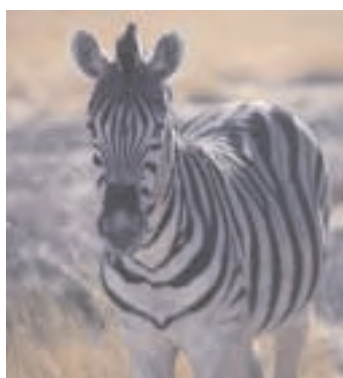
A GIRAFFE is very tall.

A GIRAFFE has two horns on the top of its head.



A ZEBRA has no horns.

A ZEBRA has black and white stripes.



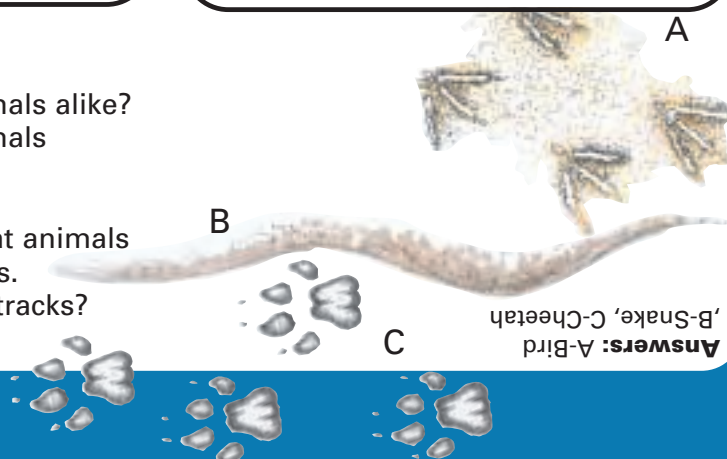
A WARTHOG has two tusks.

A WARTHOG holds its tail up in the air when it runs.



In what ways are these animals alike?
In what ways are these animals different?

Sometimes you can tell what animals live in an area by their tracks.
Which animals made these tracks?



Answers: A-Bird
B-Snake, C-Cheetah

1b



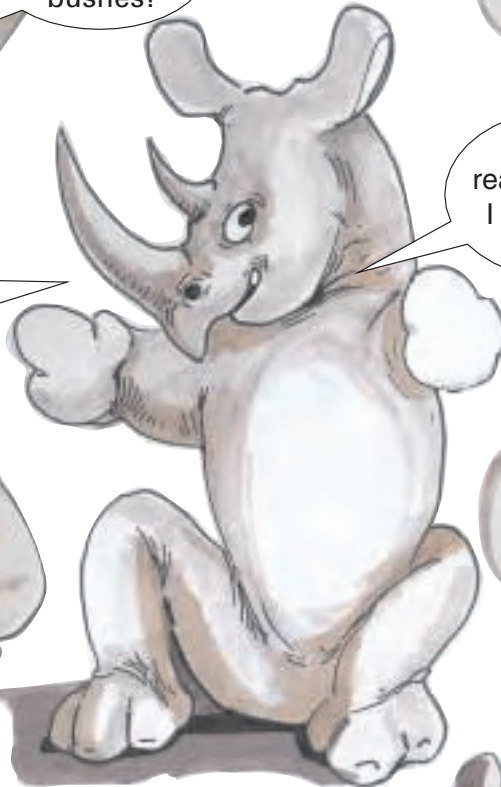
Did you see me in the bushes?



It is easy to see where I have been.



DUNG SCRAPES



I have really big feet. I have three toes.



WALLOWS

I like to go to the toilet in the same place to make a pile of dung. I also rub my feet in my dung so that they smell a lot.



I love to roll in mud. I also like to roll in dust.

Chip has been here. I can tell by his smell.



Now look again at the picture on the other side of this card and see if you can tell where the Black Rhino has been.



I am not black. My skin is actually grey.



Black Rhino

A Black Rhino weighs more than a small car and is taller than one too.

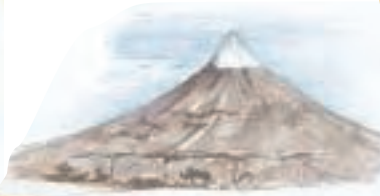
The Black Rhino's top lip is pointed. The lip is used like a finger to grab branches and pull them into the mouth so that they can be eaten.



Height: 1.6 m
Weight: 850kg

FACTS

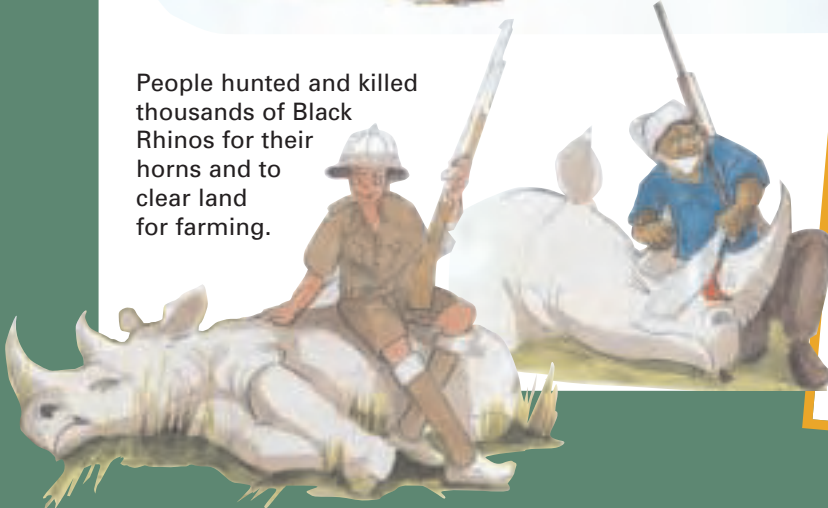
Black Rhinos like to live where there are lots of different trees and shrubs to eat...



...and water to drink.



People hunted and killed thousands of Black Rhinos for their horns and to clear land for farming.



Today there are only 5,630 Black Rhinos left alive in Africa.



Black Rhinos

2b



Willy eats grass. He has a very wide lip so that he can cut off lots of grass with every bite.



Height: 1.8 m
Weight: 2000kg

FACTS

White Rhinos can weigh as much as an empty Land Cruiser and are taller than most people.



White Rhinos like to live in savannas and bushveld where there is lots of grass to eat and water to drink.



White Rhinos

Once there were lots of White Rhinos all over Africa but people killed them like they did the Black Rhinos. At one stage there were only about 100 White Rhinos left alive. People realised that it was not good to kill all the rhinos and started to protect them.



Today there are about 18,000 White Rhinos living in Africa.

3a Black Rhino Populations and Reproduction

As little as 30 years ago I had over 65 000 relatives all over Africa.



96% of all my relatives were killed between 1970 and 1994. Mostly they were killed for their horns.



Black Rhino horn is used to make dagger handles and traditional medicines in other parts of the world.



Poachers think that they will get lots of money for rhino horn.



The poacher only gets a little money from the people they sell to. These people then sell the horn again for much more money.

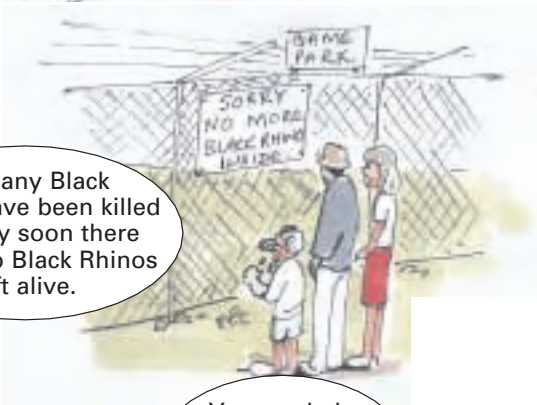


The poacher risks his life and years in jail so that someone else can make easy money.



So many Black Rhinos have been killed that very soon there will be no Black Rhinos left alive.

There are so few of us now that they call us **CRITICALLY ENDANGERED**.



You can help me by telling others about me and how I am rare and protected.



REWARD for CAPTURED RHINO POACHERS

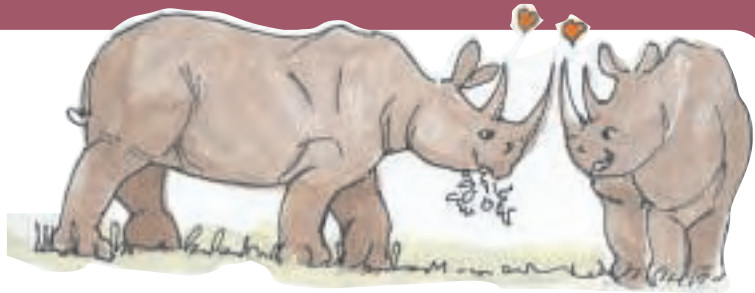
WANTED RHINO POACHER

People are paid to help arrest rhino poachers. In many countries rhino poachers must go to jail.



3b

Female Black Rhinos are normally more than five years old before they are sexually mature. A male Black Rhino will join the female when she is ready to mate. A Black Rhino can live to be 40 years old.



Black Rhinos either live alone or in small groups. Males generally live alone.



Can you answer this question?
A Black Rhino cow can have a calf every two and a half years. She can only produce one calf at a time.
How many calves could she have in ten years?

The gestation period for a Black Rhino is about 465 days. This means that from mating to birth takes about 15 months.



The calf will live with its mother till it is between the ages of two and five.



Black Rhinos only have one calf at a time.



I am called a CALF.
My mother is called a COW.
My father is called a BULL

Most other wild animals can have babies every year. Some can even have twins or more. Black Rhinos breed very slowly compared to other wild animals. This is one of the ways rhinos are different from other wild animals. It is going to take a long time for the populations of Black Rhinos to increase.



4a

When my Great Grandfather was alive he told me that there use to be lots of wild animals everywhere and very few people.

Today it is the other way around. Now there are lots of people and few animals. These people use lots of land for their towns and farms leaving fewer places for wild animals to live in

Many governments set up NATIONAL PARKS so that the wild animals could have somewhere to live. Some private citizens also let wild animals live on their land. These places are called GAME PARKS or CONSERVANCIES. Visitors pay to visit these places to see wild animals.

I am a big tourist attraction because I am so rare and famous.

Lots of money and lots of jobs come from keeping wild animals.

Land for Wildlife

4b

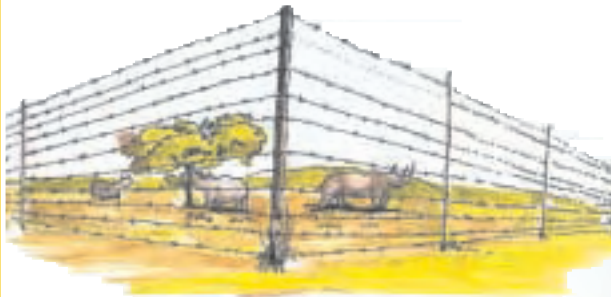
In the 1970s and 1980s commercial poachers killed 96% of all the Black Rhinos. In Angola, Botswana and Zambia, poachers killed every last rhino. The poachers only wanted the horns to sell to other countries in the Middle East and Asia where it is used to make dagger handles and traditional medicines.



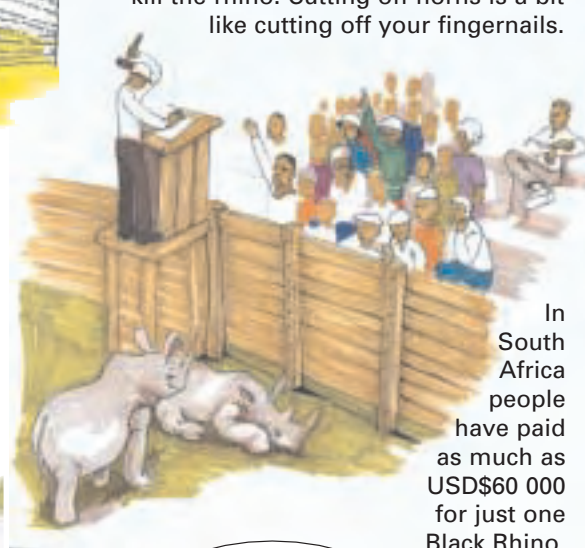
Some countries managed to stop the poachers from killing all the rhinos. In some places people moved the rhinos that were left into safer areas so that they could protect them better.



Moving a rhino is a difficult job because they are such big animals. It needs special trucks and veterinarians. It is expensive and dangerous work. Sometimes wildlife managers will cut off the rhino's horns so that it is not worth the poacher's effort to kill the rhino. Cutting off horns is a bit like cutting off your fingernails.



Today most Black Rhinos live in special areas in national parks or conservancies. Most of these areas are fenced and patrolled regularly by special rhino scouts. These rhino scouts check on all the rhinos to make sure they are safe and well.



In South Africa people have paid as much as USD\$60 000 for just one Black Rhino.

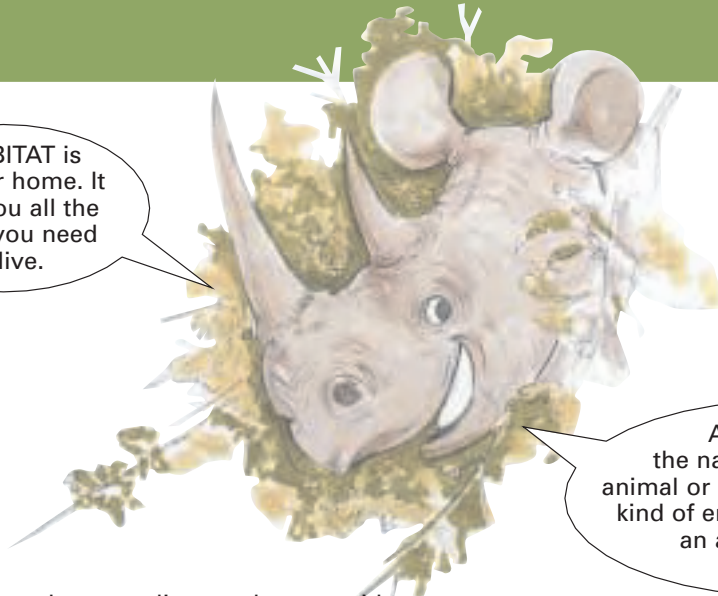


Black Rhino populations are now slowly increasing. This is because of a lot of effort has been made to stop poachers. Also people now realize that a Black Rhino is worth a lot more money alive than dead.

Black Rhinos are very valuable as tourist attractions because we are so rare and unusual.



A HABITAT is like your home. It gives you all the things you need to live.



A HABITAT is the natural home of an animal or plant. It is a particular kind of environment in which an animal or plant can live.

The place where you live needs to provide you with all these things to be your home / habitat.

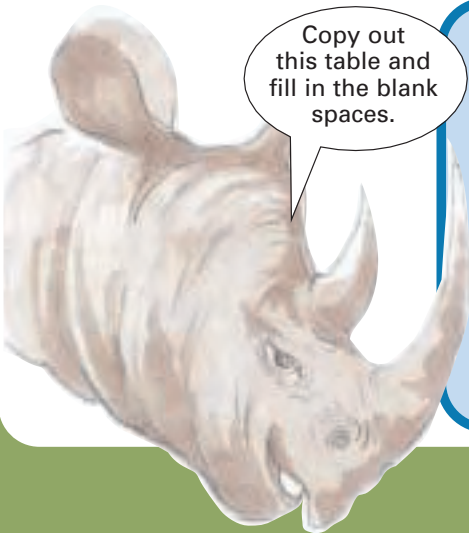


Food

Shelter

Family and Friends

Water



Copy out this table and fill in the blank spaces.

Imagine that for some reason your house was destroyed. You would have no _____. (1). Could you live without your house? If you wanted to keep living here you would have to re build your house wouldn't you?

Imagine that someone destroyed my thicket. I would have no _____ (2) or _____ (3).

Like you a rhino can not live without these things. For the rhino to survive he needs his thicket back. What will happen to the rhino without his thicket?

(1) Shelter. (2) Shelter. (3) Food.

5b

Within a habitat animals have **TERRITORIES**. A territory is the area in which an animal lives.



My **TERRITORY** must have places where I can feed, hide, sleep and breed.

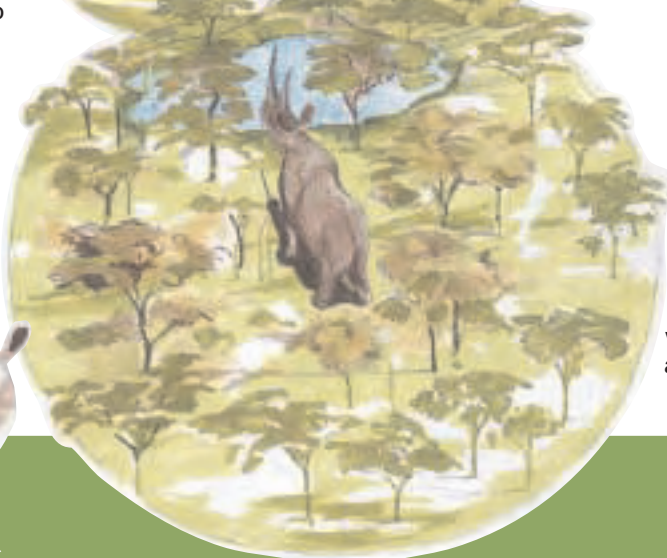
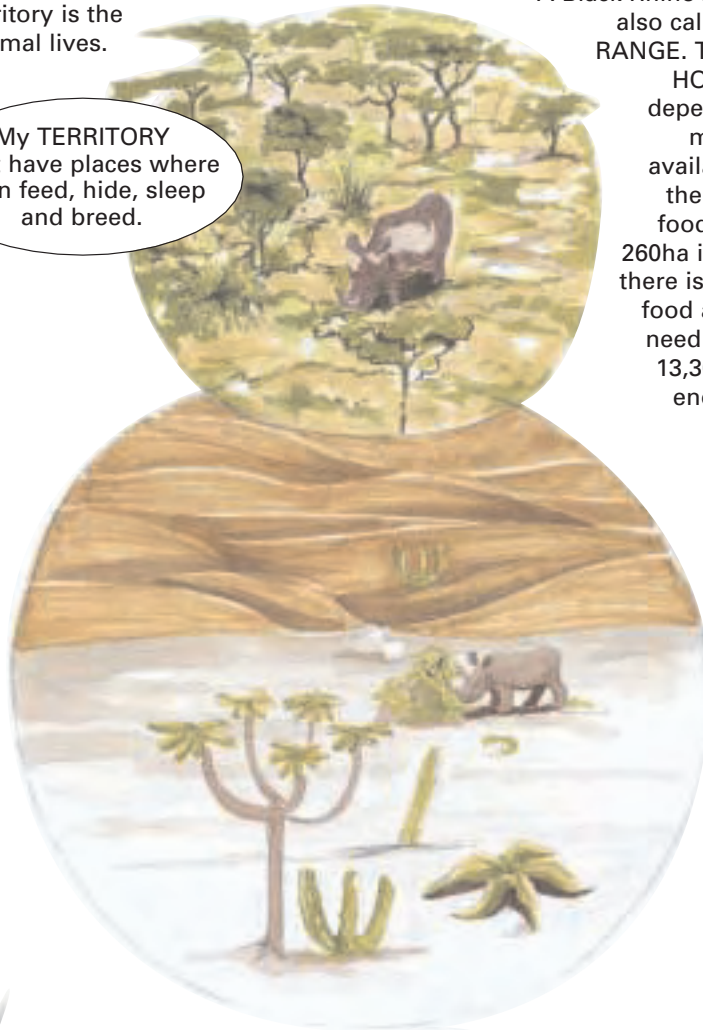
Rhinos like to keep to areas that they know within a suitable habitat. Normally the most dominant bull in an area lives where the habitat is best. Other rhinos may come into his area to feed or drink but they will not stay. They will go back to their own territory to rest and sleep.



Black Rhinos mark their territories with scent so that other rhinos know they live there. Rhinos scrape their feet in their dung so that when they walk they leave their smell on the path. Males mark their territories more than females.



A Black Rhino's territory is also called a **HOME RANGE**. The size of a **HOME RANGE** depends on how much food is available. Where there is a lot of food, as little as 260ha is enough. If there is only a little food a rhino may need as much as 13,300ha to find enough to eat.



Dung piles and scrapes are two signs that can be seen that indicate a rhino's presence. Males also spray urine onto rocks or bushes to let other rhinos know who they are and that they live there.

Territories

**Black Rhino
Distribution
1700**



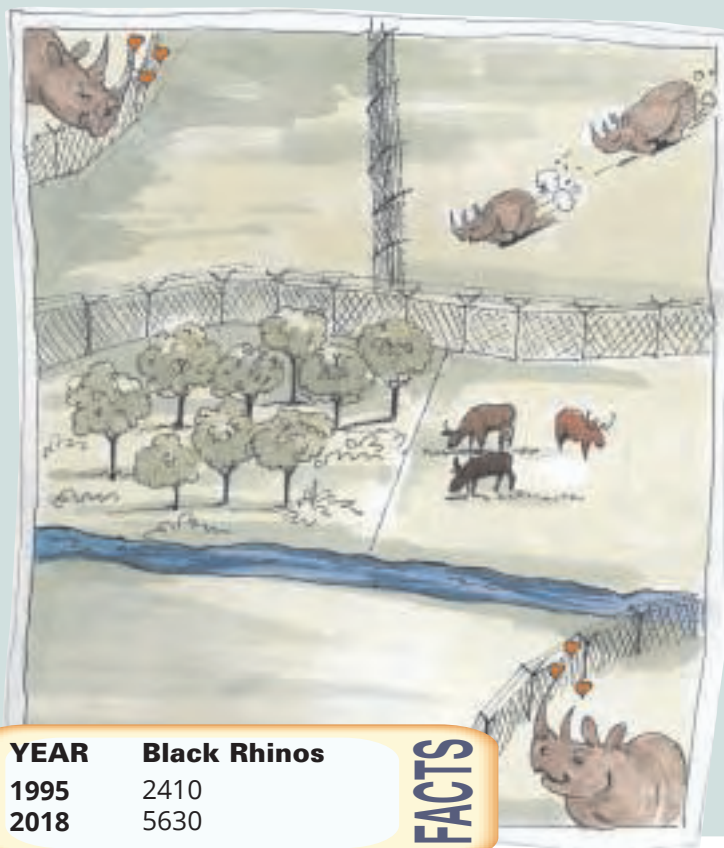
Many years ago Black Rhinos lived in many different countries all over Africa.

**Black Rhino
Distribution
2000**



Over time, people killed thousands of Black Rhinos. Now Black Rhinos can only be found in a few areas where they are specially protected.

Specially fenced and patrolled areas have been important to protect the few surviving Black Rhinos in Africa from poaching. Now populations are starting to increase again.



As the populations increase the fences that help protect them can start to become a problem. Fenced in, the growing population has to feed on the same number of trees and bushes. The rhinos will eventually start fighting for food and space. This causes the rhinos to breed more slowly.

Having separate populations is not good for breeding rhinos. It can be hard for the rhinos to find mates.

YEAR	Black Rhinos
1995	2410
2018	5630

FACTS

6b



To keep the population of Black Rhinos increasing we need to find different ways to give them more places to live.



To help the rhinos with these problems people move them into other protected areas where there are less or no rhinos. This is called **TRANSLOCATION**
 TRANS = Move and LOCATION = Place

In some countries it has been possible to join up different Black Rhinos' areas. In these places the fences are taken down so that the rhinos can move themselves to find new mates and places of their own to live.



It is hoped that by doing this the populations of Black Rhinos will increase to the point where they are no longer in danger of becoming extinct.

Rhino Geography

Sunrise over the River

Creatures stir and begin their day.
One appears and all the trees tremble.
It's a young rhinoceros out to play.



There's a one-ton, two-horned giant in the sun.
It's a three-toed, four-legged rhino on the run.
For he's all too rare, so do take care
To shoot him with a camera and never with a gun.

Feeding time in the broad bushveld.
Black Rhinoceros wander free.
Roll in dusty bath, feast on tender trees.
Snooze at peace in the shade of a tree.

There's a one-ton, two-horned giant in the sun.
It's a three-toed, four-legged rhino on the run.
For he's all too rare, so do take care
To shoot him with a camera and never with a gun.

Sunset over the River
To water the thirsty creep.
Black rhinoceros take your fill
And wander off to cover, then go to sleep.

There's a one-ton, two-horned giant in the sun.
It's a three-toed, four-legged rhino on the run.
For he's all too rare, so do take care
To shoot him with a camera and never with a gun.



Where does this Black Rhino live?
Can you tell me what he eats?
What are some of the things he likes to do?
How many toes does a Black Rhino have?
Why is it important not to kill a Black Rhino?



How the Rhino got its Skin

Once upon a time, on an uninhabited island on the shores of the Red Sea there lived a man with magic powers. One day he took flour and water and sugar and things, and made himself one cake that was two feet across and three feet thick. Just as he was going to eat the cake there came down to the beach from the Uninhabited Interior one Rhinoceros with a horn on his nose, two big ears and few manners. In those days the Rhinoceros's skin fitted him quite tight. There were no wrinkles in it anywhere. He said 'HOW!' and the man with the magic left his cake and climbed a tree. The rhinoceros spiked the cake with his horn and then he ate it and he went away, waving his tail. The magic man came down from his tree and said:

**'Them that takes cakes
Which the Parsee-man bakes
Makes dreadful mistakes.'**

Five weeks later, there was a heat-wave in the Red Sea, and everybody took off all the clothes they had. The Rhinoceros took off his skin and carried it over his shoulder as he came down to swim. In those days it buttoned up underneath with three buttons. He never said anything about the magic man's cake, because he had eaten it all; and he never had any manners, then, since, or ever. He waded straight into the water and blew bubbles through his nose, leaving his skin on the beach.

The magic man found the skin, and he smiled one smile that ran all round his face two times. Then he danced three times round the skin and rubbed his hands. He then went to his camp and filled his hat with cake crumbs, for the magic man never ate anything but cake, and never swept out his camp. He took that skin, and he shook that skin, and he scrubbed that skin, and he rubbed that skin just as full of old, dry, stale, tickly cake-crumbs as it ever could possibly hold. Then he climbed a tree and waited for the Rhinoceros to come out of the water and put it on.

And the Rhinoceros did. He buttoned it up with the three buttons, and it tickled like cake-crumbs in bed. Then he wanted to scratch, but that made it worse; and then he lay down on the sands and rolled and rolled and rolled, and every time he rolled the cake-crumbs tickled him worse and worse and worse. He then ran to a tree and rubbed and rubbed and rubbed himself against it. He rubbed so much and so hard that he rubbed his skin into a great fold over his shoulder, and another fold underneath, where the buttons used to be (but he rubbed the buttons off), and he rubbed some more folds over his legs. And it spoiled his temper, but it didn't make the least bit of difference to the cake-crumbs. They were inside his skin and they tickled. So he went home, very angry indeed and horribly scratchy; and from that day to this every rhinoceros has great folds of skin and a very bad temper, all on account of the cake-crumbs inside.

Based on Rudyard Kipling's tale in his book **Just So Stories**



ADDITION AND SUBTRACTION

1. You are taking care of a population of 20 Black Rhinos. 10 are male. 10 are female. 3 females produce a calf each. How many Black Rhinos do you now have?
2. Next year another 3 females produce another 3 calves. How many Black Rhinos do you have now?
3. In the next year another 2 calves are born. What is your Black Rhino population now?
4. Poachers sneak in and put up snares. Two female rhinos are killed. Without their mothers to feed and protect them their calves also die. How many Black Rhinos die? How many Black Rhinos are left alive?
5. Black Rhinos normally produce as many male calves as females. This means that out of 10 calves 5 will be female and 5 will be male. Use this information to work out how many males and females there are in your population assuming that one of the calves that died was a male and the other female.
6. A Black Rhino will normally run away from people but if it gets a fright it sometimes runs towards what ever has given it a fright. A Black Rhino can run as fast as 55km/hr. The fastest people can run about 35km/hr. How much faster than a person can a rhino run?



BLACK RHINO POPULATION ESTIMATES 1980-2002

	1980	1984	1987	1991	1992	1993/4	1995	1997	1999	2002
ANGOLA	300	90	?	50	50	10	0	0	0	0
BOTSWANA	30	10	<10	<10	5	4	0?	0?	0?	1
MALAWI	40	20	25	5	0?	2	2	3	6	7
MOZAMBIQUE	250	130	?	50	50	45	?	13	0?	0?
NAMIBIA	300	400	449	479	489	583	598	707	695	893
SOUTH AFRICA	630	640	577	771	819	897	1024	1043	1074	1179
SWAZILAND	0	0	6	6	6	4	9	10	10	10
ZAMBIA	2750	1650	>106	40?	40	33	0?	0?	0?	0?
ZIMBABWE	1400	1680	1775	1400	425	381	315	339	435	450
AFRICA	14785	8800	3665	3450	2475	2550	2410	2660	2700	3100

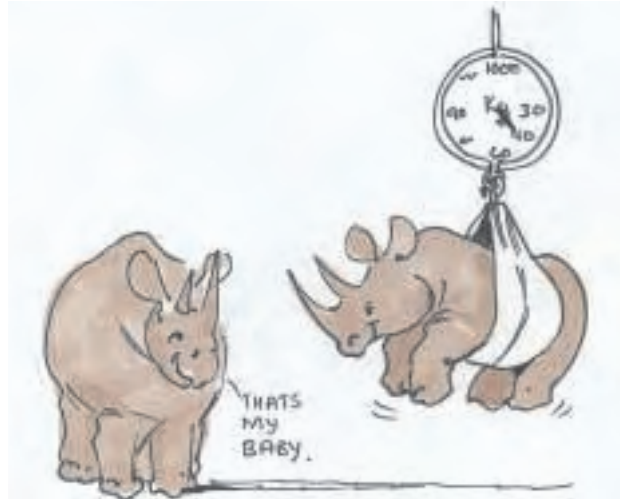
From the table find the answers to the following questions:

7. In what year did Africa have the most rhinos?
8. In what year did Africa have the least rhinos?
9. What is the difference between the highest and lowest populations for Africa?
10. By how many animals did the African population increase by between 1992 and 2002?
11. Which countries lost all their rhinos and in what years?
12. Which countries have growing populations of Black Rhinos?



MULTIPLICATION AND DIVISION

1. A female Black Rhino in good habitat will produce a calf once every two and a half years. How many calves will she have in 10 years?
2. A Black Rhino calf will weigh about 40kg when it is born. For the first 4 months it will grow at a rate of 1,4kg a day. At the end of its first week how much does the calf weigh?



LIVE RHINO SALES

3. At an auction in South Africa a white rhino and her calf were sold for R 235 000.00. One Black Rhino can be sold for double that amount. How much can one Black Rhino be sold for in South Africa?
4. If it takes a Black Rhino 10 seconds to run 150 m how fast is the rhino running?
5. How long does it take you to run 50m?
6. Who is fastest?
7. The horn on a Black Rhino's face grows at a rate of 5cm per year. How many years would it take for a horn to grow to a length of 50 cm?
8. The longest horn ever seen on a Black Rhino was 136cm long. How many years would it take to grow a horn that long?



9. A female Black Rhino will be pregnant for 465 days. How many weeks is she pregnant for?
10. Black Rhinos need to eat a lot of food. They need more than 23kg of food every day. How much food does a Black Rhino eat in a week?

