

Chapter 1: Super Senses

Think and Tell

Question 1:

(Page 2)

How did the ant know that the other ants were not from its group?

Answer:

Ants use their highly sensitive antennas to identify the members of their group. The antennas of an ant possess the sense of both smell and touch. These antennas help them to smell five times better. So, this is how the ant got to know that the other ants were not from its own group by using its antennas.

Question 2:

How did the guard ant recognize this ant?

Answer:

The guard ant could recognize and identify this ant by its smell.

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Try This and Write

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Drop some sugar, jaggery, or anything sweet on the ground. Wait until the ants come there.

Question 1:

(Page 2)

How long did it take for the ants to come?

Answer:

The ants took around 10-15 minutes to come.

Question 2:

Did one ant come first or a group of ants come together?

Answer:

One ant came first. Then it was followed by a group of ants.

Question 3:

What did the ants do with the food?

Answer:

The ants took the food and then carried it to their hole.

Question 4:

Where do they go from there?

Answer:

The ants went to their hole from there.

Question 5:

Do they move in a line?

Answer:

Yes, the ants move in a line. One ant follows the other and that's how they form a line.

Now carefully, without harming the ants, block their path for a while with a pencil. (Page 3)

Question 6:

Now observe, how do the ants move?

Answer:

The ants climb up on the pencil. However, we see that they still continue to move in a line.

Question 7:

Now can you guess why the ants behaved like that when you blocked their path?

Answer:

Ants actually leave a special smell on the ground while they are moving from one place to another. The other ants track this smell in order to find their way. Thus, when their path was blocked, the ants maintained their path by using their sense of smell.

Question 8:

Have you ever been troubled by mosquitoes? Just think, how do they know where you are?

Answer:

Yes, I have been troubled by mosquitoes quite a few times. They can find us by the smell and heat of our bodies.

Question 9:

Have you seen a dog sniffing here and there? What do you think it is trying to smell?

Answer:

When I go outside, sometimes I see dogs sniffing here and there. Dogs use the sense of smell to sense the visit of other dogs in their area as they can smell and identify the urine or faeces of other dogs.

Write

Question 1:

(Page 4)

In what ways do human beings make use of this special sense of smell of dogs?

Answer:

This special sense of smell of dogs is crucial for human beings as it helps them in a lot of things. Some examples are—

- (i) Used for catching criminals.
 - (ii) For finding stolen goods and missing people.
 - (iii) For detecting bombs, weapons, and explosives.
-

Question 2:

When do you find your sense of smell helpful to you? List some examples. Like—to know by its smell that food has gone bad or that something is burning.

Answer:

Our sense of smell helps us to identify and remember many things in our surroundings. Some common things which we identify easily with our sense of smell is—

- (i) Smell of perfume
 - (ii) Smell of incense sticks
 - (iii) Smell of flowers
 - (iv) Smell of food being cooked
-

Question 3:

Name the animals that you would be able to recognise only by their smell, without seeing them.

Answer:

We can recognise certain animals by their smell without actually seeing them. Some of these are—dogs, cats, buffaloes, cows, goats.

Question 4:

Write the names of five things whose smell you like and five things whose smell you do not like.

Answer:

I like the smell of	I do not like the smell of
(i) Delicious food	(i) Rotting garbage
(ii) Perfume	(ii) Stale flowers
(iii) Fresh flowers	(iii) Cow dung
(iv) Car or room fresheners	(iv) Smell from a urinal
(v) Fresh air	(v) Sweat

Question 5:

Do you and your friends have similar answers?

Answer:

Yes, my answers are pretty similar to my friends' answers.

Discuss

Question 1:

(Page 5)

Do the clothes of any of your family members smell? Whose?

Answer:

Yes, the clothes of my father and brother smell too much because they are sweaty when they come from outside.

Question 2:

Have you ever come across any smell in a crowded place such as a fair, bus, train etc.?

Answer:

Yes, I had once visited a fair at my uncle's village. There, I got a stinking smell from the place where all the garbage collected from the fair was dumped.

Think and Discuss

Question 1:

(Page 5)

Sushila covered her nose when she cleaned Deepak's nappy, but not when she cleaned her daughter. Why do you think she did this?

Answer:

Sushila must have felt that Deepak's nappy was dirty. So, she covered her nose, sensing the bad smell. The same thing didn't happen when she cleaned her daughter's nappy. So, she didn't cover her nose.

Question 2:

How do you feel when you walk near a heap of garbage? Think of the children who spend the whole day picking things from such garbage.

Answer:

Walking near a heap of garbage is a bad experience. I can sense the foul smell coming from there and I feel like covering my nose. It must be difficult for the children who spend their whole day collecting things from such garbage.

Question 3:

Is a smell 'good' or 'bad' for everyone in the same way? Or does it depend on how each one feels about it?

Answer:

Good and bad smells differ from person to person. It depends on the way a person reacts to that smell. But some foul odours are bad for most people like, odour from a heap of garbage or decaying food.

Let's See

Question 1:

(Page 6)

Write the name of a bird which has eyes in front of its head (like in humans).

Answer:

An owl has eyes in front of its head just like humans. Also, similar to human beings, owls can see an object with both eyes at the same time.

Question 2:

Write the names of some birds which have eyes on either side of the head. What is the size of their eyes as compared to the size of their head?

Answer:

Some examples of birds that have eyes on either side of the head are— pigeons, crows, sparrows, eagles, etc.

The eyes of these birds mentioned above are quite small as compared to the size of their head.

Looking with one or both eyes

Close your right eye or cover it with your hand. Tell your friend to stand to your right, at some distance, and ask him to do some action (wave hand, shake head, etc.). (Page 6)

Question 1:

Could you see your friend's action, without moving your neck?

Answer:

No, I was not able to see my friend's action without moving my neck.

Question 2:

Now try to look at your friend's action with both your eyes open but without moving your neck.

Answer:

Yes, my friend's actions were visible to me then.

Question 3:

What was the difference between looking with one or both eyes?

Answer:

On keeping both eyes open, I had a better and broader view as compared to keeping one eye open.

Question 4:

(Page 7)

Now toss a small ball or a coin and try to catch it. Try this with both your eyes open. Then close one eye and try to catch it. When was it easier to catch?

Answer:

It was easier to catch the ball or coin when both my eyes were open.

Question 5:

Imagine how it would be to have your eyes in place of your ears? What would you be able to do then, which you cannot do now?

Answer:

If there were eyes in place of my ears, I could see on my left and right without moving my neck, which I cannot do now.

Question 6:

Now can you guess from what distance an eagle in the sky can see a *roti* on the ground?

Answer:

An eagle in the sky is able to see a *roti* on the ground from a distance of approximately 1.5 km to 2 km.

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Write

Question 1:

(Page 8)

The names of ten animals whose ears can be seen.

Answer:

Cat, cow, deer, buffalo, goat, elephant, lion, zebra, giraffe, and rat.

Question 2:

The names of some animals whose ears are bigger than our ears.

Answer:

There are many animals whose ears are bigger than our ears. Some of them are—elephant, rabbit, cow, zebra, dog etc.

Think

Question 1:

(Page 8)

Is there some link between the size of animals' ears and their hearing?

Answer:

Yes, there is a connection between the size of animals' ears and their ability to hear. Animals with big ears can hear the faintest sound from a long distance whereas animals with small ears cannot do so.

Try This

Question 1:

(Page 8)

For this activity find a quiet place in your school. Tell one of your friends to stand at a short distance and ask him to say something softly. The rest of you should listen carefully. Then all of you put your hands behind your ears, as shown in the picture. Let the same child say something again as softly as before. In which case was the sound sharper? Ask your friends too.



Answer:

When the hands were put behind the ears, the sound became sharper.

Question 2:

Put your hands over your ears and say something. Can you hear your own voice?

Answer:

Yes, I can hear my own voice.

Question 3:

(Page 9)

Sit near a desk. Tap the desk once with your hand. Listen carefully. Now put your ear on the desk as shown in the picture. Tap on the desk once again with your hand. Listen again. Was there any difference in the sound of the tap?

Answer:

Yes, when I put my ear on the desk, I was able to hear a sharper sound.



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Write

Question 1:

(Page 10)

Can you understand the sounds of some animals? Which animals?

Answer:

Yes, I can understand and identify the sounds of some animals. Example—Cow, horse, goat, donkey, cat, dog etc.

Question 2:

Do some animals understand your language? Which ones?

Answer:

Yes, some pet animals like cats, dogs, parrots start understanding our language after staying with us for a considerable time.

Say it with Sounds

Question 1:

(Page 10)

Just like birds and dolphins you can also make your own language of sounds for giving messages. Remember you have to talk to your friends with only sounds and no words. How and when will you need to give an alarm call? For example, when the teacher is coming to the classroom!

Answer:

When the teacher is coming to the classroom, we can use some long sounds like *oooooooooooooooooooo* or *howwwwwwwwwwwww* that could be thought of as an alarm call.

Sleep-Waking

Question 1:

(Page 10)

Have you noticed that during the cold season you cannot see any lizards in the house? Where do you think they have gone?

Answer:

Lizards undergo a long sleep during winters. It is called hibernation. They move to a safe and warm place to protect themselves from the cold and save energy. There are also other animals who hibernate, such as bats, ground squirrels etc. During hibernation, the breathing and the heart rate of the animals decrease than the standard rate.

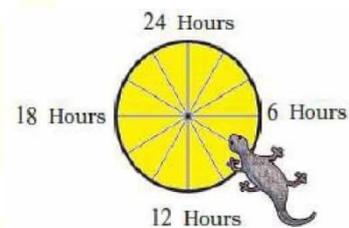
Question 2:

(Page 11)

How will you show the clock for a house-lizard in winters?

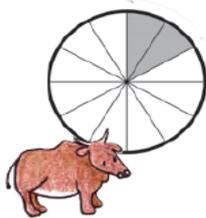
Answer:

During winters, a house-lizard goes for a long sleep, also called hibernation. So, the coloured part of the adjacent picture shows the clock for a house-lizard in winter.

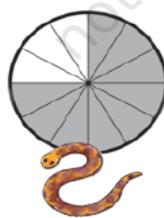


Question 3:

Given here is the sleeping time of some animals. Write below each picture for how many hours a day that animal sleeps.



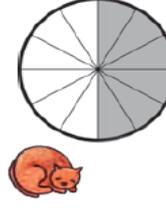
Cow _____



Python _____



Giraffe _____



Cat _____

Answer:

Cow: Sleeps for 4 hours.

Python: Sleeps for 18 hours.

Giraffe: Sleeps for 2 hours.

Cat: Sleeps for 12 hours.

Question 4:

When you see different animals, do you have any questions about them? Make a list of ten such questions.

Answer:

Yes, there are many questions which come to my mind when I see different animals, such as—

- (i) Do they talk to each other?
- (ii) Do they understand what we say?
- (iii) Are they able to see colours?
- (iv) Can they see anything during the night?
- (v) How do they sense any approaching danger?
- (vi) For how many years do they survive?
- (vii) How do they collect food?
- (viii) How do they face bad weather?
- (ix) How do they give birth to young ones?
- (x) How do they find shelter?

The tiger is one of the most alert animals. And yet, today tigers are in danger. (Page13)

Question 5:

What do you think are some of the dangers to tigers in the jungle?

Answer:

Some of the dangers faced by tigers in the jungle are—

- (i) Hunting and poaching for the skin.
 - (ii) Attack by lions as they are a stronger species than tigers.
 - (iii) Destruction of their natural habitat due to human activities.
-

Question 6:

Can human beings also be a threat to animals? How?

Answer:

Yes, human beings are a threat to the animals in the following ways—

- (i) Hunting and poaching animals for their skin, horns, fur, meat.
 - (ii) Destruction of forests for the ever-increasing human population, which leads to the loss of the animals' natural habitat.
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Indian Education, International Approach

Find Out

Question 1:

Where are other such National Parks in India? (Page 13)

Answer:

Some examples of National Parks in India are as follows—Kanha National Park in Madhya Pradesh, Bhitarkanika National Park in Odisha, Kaziranga National Park in Assam, Gorumara National Park in West Bengal, Gir National Park in Gujarat, Keoladeo National Park in Rajasthan, Mount Harriet National Park in Andaman & Nicobar Islands, Nagarhole National Park in Karnataka, Palamu National Park in Jharkhand.

Question 2:

Collect information on these and write a report.

Answer:

National Parks have been made all over India to provide protection to different animals and plants in their natural habitats. These national parks are necessary to preserve our environment and maintain the ecological balance. Some animals get special status in these national parks, depending on their habitats. For example, Kaziranga National Park specifically provides special protection to one-horned rhinoceros, a very rare species in the world. Similarly, Gir National Park especially focuses on the protection of Asiatic lions.

What Have We Learnt

Question 1:

(Page 13)

Have you noticed that sometimes singers put their hand on their ear when they sing? Why do you think they may be doing this?

Answer:

Yes, I have noticed singers putting their hand on their ear while singing. They do this to lessen the surrounding noise and listen to their own sound clearly.

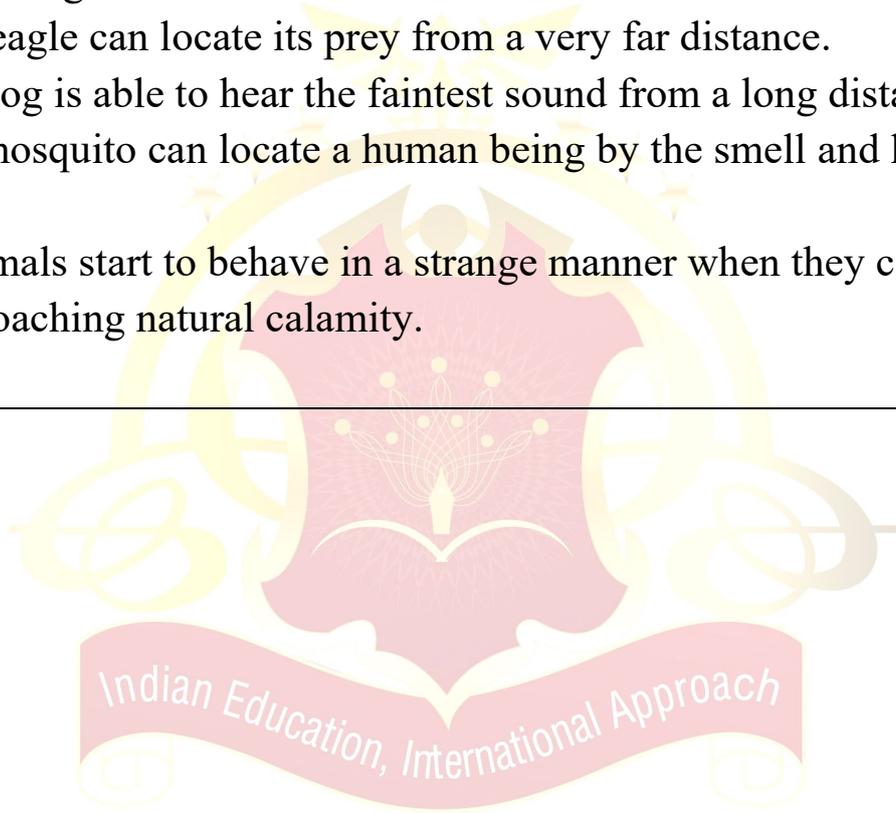
Question 2:

Give examples of animals that may have a very strong sense of sight, hearing or smell.

Answer:

Some examples of animals that have powerful sense of sight, hearing, or smell are as follows—

- (i) Some kinds of dogs can detect explosives by their smell, which human beings cannot.
 - (ii) An eagle can locate its prey from a very far distance.
 - (iii) A dog is able to hear the faintest sound from a long distance.
 - (iv) A mosquito can locate a human being by the smell and heat of the body.
 - (v) Animals start to behave in a strange manner when they can sense an approaching natural calamity.
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