

All animals communicate through one of the following four methods: visual, auditory, **tactile** or chemical. Here are a few examples of each:

Visual



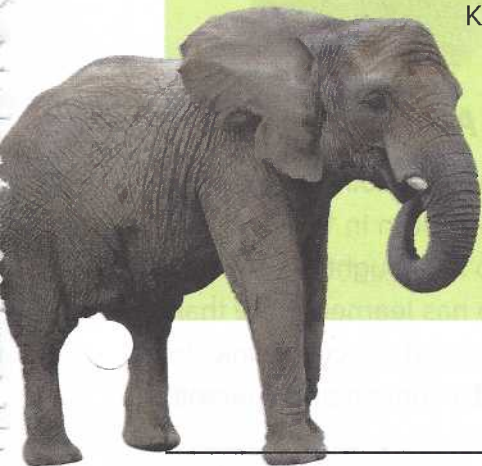
- Fireflies glow in the dark to attract a mate.
- Male peacocks flash elaborate tail feathers during courting rituals. You have probably noticed that most male birds have a more colourful plumage than females.
- Cobras will inflate their **hoods** to warn other creatures to stay away.
- Kangaroos will **thump** their hind legs to warn other kangaroos of imminent danger.
- Deer will flick their tails to warn others behind of danger ahead.
- Bees have an elaborate “dance” to indicate a source of pollen. When a bee arrives at the hive after locating a field of flowers, it will walk around in a figure-of-eight pattern. The direction of the “dance” indicates the direction of the field and the speed of the “dance” indicates the distance. The faster the “dance,” the further the field. A recent study concluded that the “dance” might also be chemical in nature.



Auditory



- A dog’s bark often indicates its intention. It will not bark in the same way to greet its owner as it will to tell an **intruder** to stay away.
- Whales use songs to communicate among themselves, with a male singing to attract a female.
- People used to think that elephants could communicate among themselves without making a sound. In 1985, Katherine Payne, of Cornell University in New York, discovered that elephants communicate using low-frequency sounds. The frequencies are so low that they cannot be heard by humans. The low-frequency sounds they produce can travel over great distances and so one **herd** of elephants can communicate with another herd located kilometres away.



tactile
touch

hood
the flap of skin around the cobra’s head

thump
hit the ground with your foot

intruder
an unwelcome stranger

herd
group

Vocabulary



Tactile

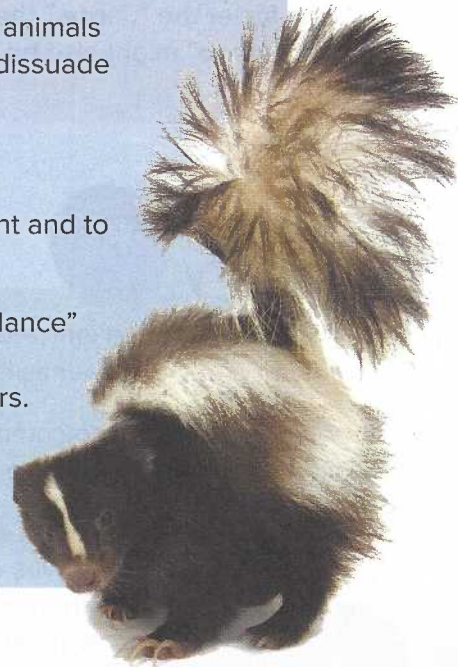


- Many species of apes use touch to show affection and groom each other.
- Horses rub noses to show affection.
- Almost all mammals lick their young to create a **bond**.
- Elephants intertwine their trunks to show affection.
- Some horned animals either butt heads or lock horns to establish dominance.

Chemical



- Ants use a pheromone trail to follow each other. Many insects also use pheromones to attract a mate.
- Skunks use their very distinctive smell to warn other animals (and people) to stay away. When the smell does not dissuade them, the spray always does.
- Some animals urinate to mark their territory.
- Cats rub against objects to mark them with their scent and to indicate that the object is theirs.
- In a recent study, a researcher discovered that the “dance” a bee does upon returning to its hive may not be to indicate the direction and distance of a field of flowers. He discovered that by frantically walking in a figure-of-eight pattern, the bee is shaking off the scent of the field it has just visited. The other bees pick up the scent and follow it to the “honey pot.”



Communication Between Man and Animals

Can an animal actually talk to a human? The answer is both yes and no. There is the case of Koko, a female gorilla who was born in 1971. Koko is still the test subject of Dr. Francine Patterson, who has taught her the use of American Sign Language. Over the years, Koko has learned more than 1,000 words and expressions. She has also learned to communicate complex thoughts and feelings, and often **initiates** a conversation herself.

Vocabulary

bond
connection

initiates
begins

After Reading

Answer each question with a complete sentence.

1 How do animals communicate?

2 What visual communication device is common to almost all birds?

3 Which aspect of elephant communication is extraordinary?

4 What is peculiar about a cat's meow?

5 What trait is common to almost all mammals?

6 What are two uses of pheromones?

7 How does Koko communicate with people?

8 What method do bees use to communicate information to other bees?

9 According to the text, which feeling is most often communicated through touch? Is this also true for humans? Explain.

10 Elephants use low-frequency sounds to communicate with each other because these sounds travel much farther. Do you think there might be another reason for this?

11 Do you think humans communicate using more than one method? Justify your answer by giving examples.

Communicating Methods

Indicate if the following gestures are visual, auditory, tactile or chemical.

	visual	auditory	tactile	chemical
<i>Example:</i> A kitten nuzzles its mother.			X	
a) A cat rubs against a chair.				
b) A lion shows its fangs.				
c) A rattlesnake shakes its rattle.				
d) A skunk lifts its tail.				
e) A bee stings you.				
f) A dog licks its new born pup.				
g) A dolphin chatters.				
h) An ant leaves a distinct trail.				
i) Koko uses sign language.				
j) A dog snarls at a stranger.				

Feelings

Write on a separate sheet of paper a short text (150 words) about feelings animals might genuinely have toward humans and how they express those feelings.

A Step Forward

Part A

Answer the following questions on a separate sheet of paper.

- 1 If you were an animal, which of the four types of communication would you prefer to use and why?
- 2 What is the purpose of this text?
- 3 Do you think an animal like Koko can genuinely communicate with humans or is she simply imitating what she sees? Explain your answer.
- 4 Do you have a pet and if so, does it “speak” to you? How? If you don’t have a pet, do you think people who say their pet “communicates” with them are exaggerating? Explain.
- 5 Skunks have a terrible reputation, as you probably know. Does the skunk illustrated on page 90 live up to its reputation? Explain.

Part B

Discuss the following in small groups.

- 1 Do animals really communicate their feelings or are they simply going on instinct or expressing basic needs? Explain.
- 2 Which of the following is the most effective means of communication in the animal world: visual, auditory, tactile or chemical? Why? Which is the least effective? Why?

