



Scientists Answer: Why Are Dogs' Noses So Cold?

What can dogs' noses do?

- Dogs' noses have 100 million nerve endings! This means they are expert smellers.
- Scientists also found out that their noses can sense small amounts of heat!

Why are dogs' noses so cold? Scientists think they might have found the answer! They think the dogs' clever noses can sense heat from a distance.

From the huge Great Danes to the tiny terriers, dogs truly make fantastic pets. But have you ever wondered why their noses are so cold?

For a while, people thought that dogs had cold noses to keep themselves the right temperature. However, scientists in Sweden and Hungary think they've found a different answer.

In a new **study**, they say that dogs' cold noses can detect small amounts of heat. This allows them to spot the heat of small animals from 1.5 metres away!

The tip of a dog's nose is called a rhinarium. This has a lot of **nerve** endings — a whopping 100 million! You will have about 6 million in your nose. That's a lot but nothing compared to a dog!

This is why dogs have such an amazing sense of smell. It also helps them spot small changes in heat. This is perfect for finding small **mammals**.

Scientists from Lund University and Eotvos Lorand University worked together to test whether dogs' noses could sense heat.

They chose three hounds: Kelvin, Delfi and Charlie. These pooches were trained to find the warmest of three objects. The **study** says that the warmest was the same temperature as 'a furry mammal'.



Illustration: A dogs' nose is often cold and wet!

Humans couldn't spot the warmest object without touching it. The dogs, however, used their noses to sense it from over a metre away!

Dogs' noses are a different temperature to the place they are in. Scientists think that this difference means dogs can sense a 'weak **thermal radiation**' from the warm object.

That's why a dog's nose feels so strange. It keeps a cool, wet nose so that it can sense the change in temperature. Perfect for finding other animals in the wild!

Who 'nose' what scientists will find out next!

Glossary

study	An investigation into something.
mammals	A warm-blooded animal that has live young.
nerve	Tiny wire-like parts of the body which sense things and share information.
thermal radiation	Energy given off which can be felt as heat or warmth.

Questions

1. 'In a new study, they say that dogs' cold noses can detect small amounts of heat.'
Tick the word which is closest in meaning to 'detect' in this sentence.

- detach
- notice
- solve
- unearth

2. How many nerve endings does the tip of a dog's nose have?

- 1.5 million
- 6 million
- 50 million
- 100 million

3. Tick a box for each row to show whether each statement is a fact or an opinion.

	Fact	Opinion
Dogs truly make a fantastic pet.		
The tip of a dog's nose is called a rhinarium.		
The dogs could sense warmer objects from over a metre away.		
Dogs' noses feel strange.		

4. Give one example of the use of humour in the news story.

5. Compare what scientists thought about dogs' noses before and after this study.

6. What is the most important information in this news story?

Answers

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	Fact	Opinion
Dogs truly make a fantastic pet.		✓
The tip of a dog's nose is called a rhinarium.	✓	
The dogs could sense warmer objects from over a metre away.	✓	
Dogs' noses feel strange.		✓

4. Give one example of the use of humour in the news story.

Who 'nose' what scientists will find out next!

5. Compare what scientists thought about dogs' noses before and after this study.

Before scientists thought dogs' noses were cold to keep them the right temperature.

Now, scientists believe they are cold to sense heat from a distance.

6. What is the most important information in this news story?

Accept any reasonable answer which refers to the news story, e.g. Scientists believe that dog's noses are cold so they can sense heat from a distance.