

Amazing Animal Intelligence

What Animals Can Teach Us

From problem-solving crows to emotional elephants — nature is smarter than you think

■ B1 Reading ■ 30 min ■ World Around Us

Level	B1 (Intermediate)
Skill	Reading
Topic	World Around Us
Duration	30 minutes
Age Group	Teens & Adults

Learning Objectives

- ◆ Read and understand a text about animal intelligence across different species
- ◆ Learn 15 key vocabulary items related to nature, science, and cognition
- ◆ Identify examples of problem-solving, emotions, and communication in animals
- ◆ Discuss ethical questions about how we treat animals
- ◆ Write about an animal that inspires them

1 Before You Read — Animal Minds

Think about animals and discuss these questions:

1. What is the smartest animal you know of? What can it do?
2. Do you think animals have emotions like humans? Why or why not?
3. Have you ever seen an animal do something that surprised you with its intelligence?

2 Reading: Smarter Than We Thought

Smarter Than We Thought: The Hidden Intelligence of Animals

For centuries, humans believed that intelligence was something unique to our **species**. We told ourselves that only humans could use tools, solve complex problems, feel deep emotions, or communicate with **sophisticated** language. But over the past few decades, scientists have made discovery after discovery that has completely changed our understanding of animal minds. It turns out that the animal kingdom is far smarter, more emotional, and more creative than we ever imagined.

Crows: The Feathered Engineers

New Caledonian crows, found on a small island in the Pacific Ocean, are perhaps the most impressive tool-users in the animal world outside of humans. These remarkable birds can bend wire into hooks to **extract** food from narrow tubes — a task that requires planning, physical skill, and an understanding of cause and effect. In laboratory experiments, crows have solved multi-step puzzles that would challenge a seven-year-old child, using one tool to reach a second tool to reach their food.

What makes crow intelligence especially fascinating is that their brains are tiny — roughly the size of a walnut. Yet despite this, crows can remember human faces for years, hold **grudges** against people who have treated them badly, and even pass this information to other crows. They have been observed placing nuts on busy roads so that cars will crack them open, then waiting for the traffic lights to change before safely collecting their snack. This level of **problem-solving** suggests a degree of intelligence that scientists are only beginning to understand.

Elephants: Giants with Big Hearts

Elephants are among the most **emotionally complex** animals on Earth. They live in tight family groups led by the oldest female, and they show behaviours that look remarkably like human empathy, grief, and joy. When a member of the group dies, elephants have been observed standing silently around the body for hours, gently touching it with their trunks, and returning to the site days or even years later — a behaviour that researchers describe as a form of **mourning**.

Elephants also show **cooperation**. In experiments, pairs of elephants learned to pull two ends of a rope simultaneously to reach food — understanding that they needed to work together and waiting for their partner before starting. They recognise themselves in mirrors, which is a sign of **self-awareness** — a trait shared by very few species, including humans, great apes, and dolphins.

Dolphins: The Social Geniuses

Dolphins have fascinated scientists for decades with their intelligence and complex social lives. Perhaps their most remarkable ability is their use of **signature whistles** — unique sounds that function like names. Each dolphin develops its own whistle, and other dolphins use it to call that specific individual, even across great distances. This is essentially a naming system, something previously thought to exist only in human language.

Dolphins also display remarkable **adaptability**. In Shark Bay, Australia, a group of bottlenose dolphins learned to use sea sponges as tools, placing them over their noses to protect themselves while searching for fish on the rocky ocean floor. This behaviour is passed from mother to daughter — a form of cultural **transmission** that shows knowledge can be taught and inherited in the animal world, just as it is in human societies.

Honeybees: Tiny Mathematicians

Even insects display surprising intelligence. Honeybees, with brains smaller than a sesame seed, can count up to four, understand the **concept** of zero, and navigate using mental maps of their environment. When a scout bee discovers a food source, it returns to the hive and performs a complex "waggle dance" that communicates the exact direction, distance, and quality of the food to other bees. This dance is so precise that it functions as a kind of **symbolic** language.

Bees can also be trained to recognise human faces, distinguish between different artistic styles, and even learn to pull strings to access rewards. Their tiny brains process information with extraordinary **efficiency**, leading some scientists to study bee cognition for insights into artificial intelligence and robotics.

What Animals Teach Us

The more we learn about animal intelligence, the more we realise that the boundary between human and animal minds is not a wall — it is a **spectrum**. Animals think, feel, plan, grieve, and cooperate in ways that were unimaginable just a few decades ago. These discoveries carry important **ethical** implications: if animals are capable of suffering, joy, and complex thought, how should we treat them? Understanding animal intelligence is not just a scientific challenge — it is a moral one.

3 Key Vocabulary

Word / Phrase	Definition	Example Sentence
species	a group of living things that are similar and can reproduce	Humans are just one species among millions on Earth.
sophisticated	complex, advanced, or highly developed	Dolphins use sophisticated communication systems.
extract	to remove or take out something carefully	Crows use hooked tools to extract food from narrow spaces.
grudges	feelings of anger or resentment towards someone who wronged you	Crows can hold grudges against people for years.
problem-solving	the process of finding solutions to difficult situations	Crows show remarkable problem-solving skills in experiments.
emotionally complex	capable of experiencing a wide range of deep feelings	Elephants are among the most emotionally complex animals.
mourning	showing deep sadness after someone's death	Elephants display mourning behaviour when a family member dies.
cooperation	working together to achieve a common goal	Elephants show cooperation by pulling ropes together for food.
self-awareness	the ability to recognise yourself as a separate individual	Mirror tests reveal self-awareness in elephants and dolphins.
signature whistles	unique sounds dolphins use as individual names	Each dolphin develops its own signature whistle as an identity.
adaptability	the ability to adjust to new conditions or environments	Dolphins show remarkable adaptability by using tools in the wild.
transmission	the passing of knowledge or information from one to another	Cultural transmission in dolphins is similar to human teaching.
concept	an abstract idea or general understanding	Honeybees understand the concept of zero — a remarkable finding.
symbolic	representing something through signs or symbols	The bee waggle dance is a form of symbolic communication.
spectrum	a continuous range between two extreme points	Intelligence is a spectrum, not a line between humans and animals.

4

Useful Collocations

animal intelligence · problem-solving skills · body language · natural habitat ·
endangered species · food chain · animal behaviour · scientific research · laboratory
experiment · cognitive ability · emotional bond · social structure · survival instinct ·
tool use · self-awareness · animal welfare

5 Reading Comprehension

1. What can New Caledonian crows do that is especially impressive?

- a) Fly faster than any other bird
- b) Bend wire into hooks and solve multi-step puzzles ✓**
- c) Build nests from metal
- d) Speak simple human words

2. What do elephants do when a family member dies?

- a) They immediately leave the area
- b) They stand silently around the body and return to the site later ✓**
- c) They make loud sounds for several days
- d) They stop eating for a month

3. What are 'signature whistles' in dolphins?

- a) Warning sounds about predators
- b) Unique sounds that function like individual names ✓**
- c) Songs that dolphins sing during mating season
- d) Sounds that only baby dolphins make

4. How do dolphins in Shark Bay use sea sponges?

- a) As decoration for their sleeping areas
- b) As toys to play with other dolphins
- c) As tools to protect their noses while searching for fish ✓**
- d) As gifts for other dolphin groups

5. What mathematical ability do honeybees have?

- a) They can multiply large numbers
- b) They can count up to four and understand zero ✓**
- c) They can calculate the area of their hive
- d) They can solve algebra problems

6. What is the main message of the final paragraph?

- a) Animals are more intelligent than humans
- b) Animal intelligence exists on a spectrum and raises ethical questions ✓**
- c) We should stop all scientific experiments on animals
- d) Only mammals are truly intelligent

6 Vocabulary Exercise — Fill in the Blanks

Complete the sentences with the correct word from the box:

species · cooperation · self-awareness · mourning · adaptability · spectrum · extract · symbolic

1. There are millions of _____ on Earth, each with unique abilities.
2. Elephants show _____ by working together to solve problems.
3. Recognising yourself in a mirror is a sign of _____.
4. Elephants display _____ behaviour when a family member dies.
5. The _____ of dolphins allows them to learn new skills from their environment.
6. Animal intelligence exists on a _____, not as a simple yes-or-no question.
7. Crows can _____ food from narrow tubes using tools they have made.
8. The bee waggle dance is a form of _____ language that communicates direction and distance.

7 Answer Key**■ Vocabulary Exercise Answers**

1. species
2. cooperation
3. self-awareness
4. mourning
5. adaptability
6. spectrum
7. extract
8. symbolic

8 Speaking & Writing Tasks

■ ■ Speaking Task: Discussion

Discuss these questions with a partner or your teacher:

- Which animal from the text impressed you the most? Why?
- Do you think animals should have legal rights? Why or why not?
- Is it ethical to keep intelligent animals in zoos? What are the arguments for and against?
- If animals could talk to humans, what do you think they would say?

■ Useful Phrases for Expressing Surprise

- **What surprises me most is that** crows can remember human faces for years.
- **I had no idea that** honeybees could understand the concept of zero.
- **It is remarkable that** dolphins use individual names to call each other.
- **I find it fascinating that** elephants return to mourn their dead family members.
- **What struck me about the text is** how similar animal emotions are to human ones.

■ Writing Task: An Animal That Inspires Me

Write a paragraph (120–160 words) about this topic:

"Choose an animal you find fascinating. What makes it special? What can humans learn from this animal? Why does it inspire you?"

Use vocabulary from this lesson. Describe the animal's abilities and explain what impressed you most. Include at least one fact you learned.