

FUN FACTS ABOUT ANIMALS WITH THE BEST HEARING

Directions: Read the article below and use close reading strategies as often as possible: highlight, underline, and take notes.

In the vast animal kingdom, there are some extraordinary creatures that possess incredible abilities. Some animals are very fast, extremely intelligent, or have superior eyesight. Two animals in particular have amazing hearing capabilities that allow them to understand nearby movements of predators and prey– and more! But which animal *truly* has the best hearing? Let's discover the amazing auditory powers of these different animals and then you can decide for yourself.

The Barn Owl

When it comes to acute hearing, the barn owl earns a top prize. These nocturnal birds have evolved to be exceptional listeners. Their facial disc, a ring of feathers around their face, acts as a natural sound amplifier, capturing even the faintest of sounds. The facial disk is a little like a megaphone. However, instead of pushing sound out, it aims to drink sound in. Barn owls have an exceptional hearing range. They can hear frequencies of up to 10,000 hertz or higher, which is well above the range of human hearing. Barn owls can locate prey, such as mice, in complete darkness, thanks to their exceptional hearing skills. Another interesting fact is that barn owls have asymmetrical ear openings positioned at slightly different heights on each side of their head. One ear opening is higher than the other, allowing them to perceive sounds from slightly different angles. This unique arrangement assists in sound localization, enabling them to pinpoint the *exact* location of prey with high precision.

The African Elephant

Another remarkable animal known for its sharp hearing is the African elephant. Elephants have incredibly sensitive ears. Elephants have the extraordinary ability to detect and interpret sounds at extremely low frequencies, below the range of human hearing. They can perceive infrasound, which refers to sound waves with frequencies *below* 20 hertz. In comparison, humans typically hear sounds within the range of 20 hertz to 20,000 hertz. Elephants use their keen hearing to communicate with one another over long distances, even through dense forests. They produce low-frequency vocalizations called "rumblings" that can travel through the ground and air up to six miles away. These rumblings can serve as a means of long-distance communication. Elephants' heightened auditory awareness assists them in avoiding obstacles, finding water sources, and detecting the presence of predators.

So, now that you have the details– which animal reigns supreme as having the best hearing: the barn owl or the African elephant?

MULTIPLE CHOICE QUESTIONS

1. What helps barn owls capture even faint sounds?
 - a) sharp claws
 - b) large wingspan
 - c) facial disc
 - d) long beak

2. How do barn owls locate prey in complete darkness?
 - a) through echolocation
 - b) through their acute sense of smell
 - c) by using their exceptional hearing skills
 - d) by relying on their vision

3. What is the range of human hearing in terms of frequency?
 - a) below 20 hertz
 - b) 20 hertz to 20,000 hertz
 - c) above 20,000 hertz
 - d) 20 hertz to 200 hertz

4. How do elephants use their hearing abilities?
 - a) to communicate with other elephants
 - b) to swim gracefully in the water
 - c) to camouflage with their surroundings
 - d) to build strong nests

5. How far can the low-frequency vocalizations of elephants travel through the ground and air?
 - a) up to one mile away
 - b) up to three miles away
 - c) up to ten miles away
 - d) up to six miles away

MULTIPLE CHOICE ANSWER KEY

Answer Key:

1. C
2. C
3. B
4. A
5. D

EXTENSION ACTIVITIES

Creative Prompt: Write a creative short story about an elephant named Elijah who loves to listen in on people's conversations. Include details like why Elijah's ability to hear well is sometimes good, but other times *very* frustrating.

Comic Strip: Design a "Super Listener" superhero character inspired by either the barn owl or the African elephant. Create a superhero name, costume, and a short comic strip or story illustrating how their extraordinary hearing abilities help them save the day. Or, create a comic strip about the hero's origin story. Consider the challenges they might face and how their unique powers can overcome obstacles.

Activity: Sound Safari! Organize a nature walk with your classmates. Take note of the different sounds you hear. Discuss how animals, like the barn owl and the African elephant, use their acute hearing to survive in their habitats. Reflect on the importance of listening to the sounds around you.

CONNECTION TO THE UNITED NATIONS' SUSTAINABLE DEVELOPMENT GOALS (SDGS)

The United Nations (UN) is an international organization composed of countries working together to address global issues. One important focus of the UN is sustainability, which means taking actions to meet the needs of the present without compromising the ability of future generations to meet their own needs. To promote sustainability, the UN developed "The 17 Goals," also known as the Sustainable Development Goals (SDGs). These goals will help us create a better world by the year 2030. These goals are essential for all people because they address the challenges our planet and people face.

Both barn owls and the African elephant can be connected to Sustainable Development Goal (SDG) 15: Life on Land

Task: For this task, your mission is to support the SDG initiative by researching Goal 15 further. Your task will be to create a presentation that helps people understand why it is important to protect biodiversity. A target goal for this SDG is: "Mobilize and significantly increase financial resources from all sources to conserve and sustainably use biodiversity and ecosystems." Present a plan for your community that helps to address this goal. Present your findings and solutions to your class.

DIGITAL LITERACY: EXPLORING ANIMAL ADAPTATIONS

Create a short animated video or infographic that compares the hearing abilities of the barn owl OR the African elephant to one other animal that has incredible hearing. Your audience is... Kindergarteners! Include fun facts and visual representations to engage your audience.

Consider this audience's need for colorful, bold, and engaging media. Perhaps you can design a character or narrator to unveil the information to your audience.