Name _____

What Happens When Animals Breathe Out Carbon Dioxide

Short Answer Key

1. The primary function of the lungs in relation to carbon dioxide is to exchange oxygen from the air with carbon dioxide from the bloodstream. It allows carbon dioxide to be expelled from the body when we exhale.
2. Our body regulates breathing rate in response to changes in carbon dioxide levels through chemoreceptors in the brain and bloodstream. When CO2 levels rise, these receptors signal the brain to increase the breathing rate, helping to expel excess CO2.
3. Maintaining the balance of acidity and alkalinity (pH) is important in our bodies because it affects enzymatic reactions, cellular function, and overall health. Excess carbon dioxide can disrupt this balance and lead to acidosis, a condition that can have serious health consequences.
4. Our exhalation of carbon dioxide is part of the larger carbon cycle in the environment. It contributes to the carbon dioxide levels in the atmosphere, which are then used by plants during photosynthesis to produce oxygen and glucose, helping maintain a balance in atmospheric CO2 levels.
5. Oxygen plays a crucial role in cellular respiration by serving as the final electron acceptor in the electron transport chain. This process allows cells to produce energy in the form of ATP (adenosine triphosphate), which is essential for various cellular functions and activities.