

Name _____

Bones in Motion: How the Skeletal System Fuels Movement

Open-Ended Response Answer Key

1. Maintaining bone health is crucial for overall mobility and quality of life. Factors include a balanced diet rich in calcium and vitamin D, regular weight-bearing exercise, avoiding smoking and excessive alcohol, and getting enough sunlight exposure.
2. In a world without skeletons, humans would be like sacks of jelly, unable to stand, walk, or perform any meaningful tasks. Our lives would be drastically limited, and we would need external support for every movement.
3. Biomechanics in baseball, for instance, involve the skeletal system in pitching, hitting, and fielding. The body's lever systems, muscle contractions, and joint movements play a critical role in athletic performance.
4. The flexibility and adaptability of the skeletal system allow different animal species to excel in various forms of locomotion. For example, the wings of birds are adapted for flying, while the long limbs of cheetahs are adapted for sprinting.

