

Movement and the Musculoskeletal System

Biology · Answer Key · 20 Questions

1. Why do animals move?

- A) To find food and water, escape predators, find shelter, migrate, and find a mate.**
- B) Only to find food and water.
- C) To play and socialize.
- D) To stay warm.

2. How does movement benefit humans physically and mentally?

- A) Improves mood, reduces anxiety, improves sleep, and increases self-confidence.**
- B) Increases stress and anxiety.
- C) Causes fatigue and poor sleep.
- D) Decreases self-confidence.

3. What are the main components of the musculoskeletal system?

- A) Bones and muscles.**
- B) Skin and hair.
- C) Nerves and blood vessels.
- D) Organs and tissues.

4. What makes bones hard and light?

- A) Minerals like calcium, and internal cavities and spongy material.**
- B) Water content and flexibility.
- C) Fat and cartilage.
- D) Blood and marrow.

5. Which function of bones supports the body's shape?

- A) Support.**
- B) Movement.
- C) Protection.
- D) Growth.

6. How do muscles contribute to movement?

- A) Muscles contract and pull on bones.**
- B) Muscles relax and push bones.
- C) Muscles generate heat to move bones.
- D) Muscles secrete fluids that lubricate bones.

7. Which bones protect the brain?

A) The skull.

- B) The ribs.
- C) The spine.
- D) The pelvis.

8. What is the correct sitting posture for the back?

A) Straight.

- B) Slouched.
- C) Leaned forward.
- D) Leaned backward.

9. When standing for a long time, what is a recommended action to relieve pressure?

A) Shift weight from heel to toe or from one foot to the other.

- B) Stand completely still.
- C) Cross your legs.
- D) Lean against a wall.

10. When walking, where should hands ideally not be kept?

A) In pockets.

- B) By the sides.
- C) Swinging naturally.
- D) Behind the back.

11. What is the maximum recommended weight for a backpack relative to body weight?

A) 10-15%

- B) 5-10%
- C) 20-25%
- D) 30-35%

12. Which type of bone joint allows for bending and slight movement?

A) Semi-movable joints (e.g., vertebrae).

- B) Immovable joints (e.g., skull sutures).
- C) Movable joints (e.g., hip joint).
- D) Fixed joints.

13. What are movable joints covered with and lubricated by?

A) Cartilage and synovial fluid.

- B) Bone and marrow.
- C) Ligaments and tendons.
- D) Muscle and fat.

14. Which part of the skeleton supports the body and protects organs?

A) Axial skeleton (skull, rib cage, spine).

B) Appendicular skeleton (limbs).

C) Pelvic girdle.

D) Shoulder girdle.

15. What are the limbs and girdles part of?

A) Appendicular skeleton.

B) Axial skeleton.

C) Skeletal muscles.

D) Joints.

16. How do skeletal muscles cause bone movement?

A) When a muscle contracts, it pulls on a tendon, moving the bone.

B) When a muscle relaxes, it pushes the bone.

C) Muscles expand to move bones.

D) Muscles secrete a substance that dissolves bone.

17. What are some benefits of regular exercise for muscles?

A) Muscles become stronger, more resilient, and better supplied with nutrients.

B) Muscles become weaker and less flexible.

C) Muscles shrink and lose mass.

D) Muscles require less nutrient supply.

18. What is a bruise and swelling an example of?

A) A contusion.

B) A sprain.

C) A dislocation.

D) A fracture.

19. Which common injury involves the stretching or tearing of ligaments, often in the ankle?

A) Ligament sprain.

B) Muscle strain.

C) Joint dislocation.

D) Bone fracture.

20. What is a preventative measure against injuries when cycling?

A) Wearing a helmet.

B) Cycling too fast.

C) Not warming up.

D) Riding on slippery surfaces.