

PRACTICE WORKSHEET 1: SKELETAL SYSTEM | CLASS 5 SCIENCE

A. Multiple Choice Questions (5)

1. How many bones does an adult human skeleton have?
 - a. 206
 - b. 300
 - c. 220
 - d. 280
2. Which joint allows movement in all directions?
 - a. Hinge joint
 - b. Pivot joint
 - c. Gliding joint
 - d. Ball and socket joint
3. What is the backbone also called?
 - a. Ribcage
 - b. Vertebral column
 - c. Spinal cord
 - d. Medulla
4. The smallest bone in the human body is found in:
 - a. The skull
 - b. The ear
 - c. The hand
 - d. The foot
5. What connects muscles to bones?
 - a. Joints
 - b. Cartilage
 - c. Tendons
 - d. Ligaments

B. Fill in the Blanks (5)

1. The _____ protects the brain and is made up of 22 bones.
2. The longest bone in the body is the _____.
3. _____ joints are found in the elbows and knees and allow movement in one direction.
4. The ribcage is made up of _____ pairs of ribs.
5. _____ covers the ends of bones at joints to prevent wear and tear.

C. True or False Questions (5)

1. The spine consists of 33 vertebrae.
2. The lower jawbone is fixed and cannot move.
3. Cartilage helps bones move smoothly at joints.
4. Babies are born with 206 bones.
5. The femur is found in the upper arm.

PRACTICE WORKSHEET 1: SKELETAL SYSTEM | CLASS 5 SCIENCE

D. Short Answer Questions (5)

1. What are the main functions of the skeletal system?
2. Explain the difference between voluntary and involuntary muscles.
3. Describe the function of the ribcage.
4. How do hinge joints and ball-and-socket joints differ?
5. Why is posture important for the skeletal system?

E. Long Answer Questions (3)

1. Explain the different types of joints in the human body with examples.
2. Describe the functions and structure of the backbone.
3. How can we keep our bones and muscles healthy?

PRACTICE WORKSHEET 1: SKELETAL SYSTEM | CLASS 5 SCIENCE

A. Multiple Choice Questions (5)

1. **How many bones does an adult human skeleton have?**

Answer: a. 206

Explanation: While babies are born with around 300 bones, many of them fuse as they grow, leaving adults with 206 bones.

2. **Which joint allows movement in all directions?**

Answer: d. Ball and socket joint

Explanation: The ball-and-socket joint, found in the shoulders and hips, allows the widest range of movement in all directions.

3. **What is the backbone also called?**

Answer: b. Vertebral column

Explanation: The backbone, made of 33 vertebrae, is also called the vertebral column. It protects the spinal cord and provides support.

4. **The smallest bone in the human body is found in:**

Answer: b. The ear

Explanation: The stapes, located in the middle ear, is the smallest bone in the body, measuring about 2.8 millimeters.

5. **What connects muscles to bones?**

Answer: c. Tendons

Explanation: Tendons are strong bands of tissue that connect muscles to bones, enabling movement.

B. Fill in the Blanks (5)

1. **The _____ protects the brain and is made up of 22 bones.**

Answer: Skull

Explanation: The skull protects the brain and consists of 22 bones, with the cranium forming the upper part and the facial bones forming the lower part.

2. **The longest bone in the body is the _____.**

Answer: Femur

Explanation: The femur, or thigh bone, is the longest and strongest bone in the human body.

3. **_____ joints are found in the elbows and knees and allow movement in one direction.**

Answer: Hinge

Explanation: Hinge joints, like those in the elbows and knees, enable movement similar to the opening and closing of a door.

4. **The ribcage is made up of _____ pairs of ribs.**

Answer: 12

Explanation: The ribcage consists of 12 pairs of ribs, with the last two pairs referred to as "floating ribs."

5. **_____ covers the ends of bones at joints to prevent wear and tear.**

Answer: Cartilage

Explanation: Cartilage is a smooth, flexible tissue that reduces friction between bones at joints.

PRACTICE WORKSHEET 1: SKELETAL SYSTEM | CLASS 5 SCIENCE

C. True or False Questions (5)

1. **The spine consists of 33 vertebrae.**

Answer: True

Explanation: The human spine is made up of 33 vertebrae, which protect the spinal cord and support the body.

2. **The lower jawbone is fixed and cannot move.**

Answer: False

Explanation: The lower jawbone, or mandible, is the only movable bone in the skull, allowing us to speak and eat.

3. **Cartilage helps bones move smoothly at joints.**

Answer: True

Explanation: Cartilage reduces friction and protects bones at joints, ensuring smooth movement.

4. **Babies are born with 206 bones.**

Answer: False

Explanation: Babies are born with approximately 300 bones, many of which fuse as they grow into adults.

5. **The femur is found in the upper arm.**

Answer: False

Explanation: The femur is found in the thigh, not the upper arm. The humerus is the bone in the upper arm.

D. Short Answer Questions (5)

1. **What are the main functions of the skeletal system?**

Answer: The skeletal system provides structure to the body, protects vital organs like the brain, heart, and lungs, and works with muscles to enable movement. It also stores minerals like calcium and produces blood cells in the bone marrow.

2. **Explain the difference between voluntary and involuntary muscles.**

Answer: Voluntary muscles are controlled consciously, such as the muscles in the arms and legs. In contrast, involuntary muscles work automatically without conscious effort, such as the muscles of the heart and digestive system.

3. **Describe the function of the ribcage.**

Answer: The ribcage protects vital organs like the heart and lungs. It also provides support for the upper body and helps in breathing by expanding and contracting.

4. **How do hinge joints and ball-and-socket joints differ?**

Answer: Hinge joints, like those in the elbows and knees, allow movement in one direction, like a door. Ball-and-socket joints, found in the shoulders and hips, allow movement in multiple directions, including rotation.

5. **Why is posture important for the skeletal system?**

Answer: Good posture prevents strain on the spine and other bones, reduces the risk of injury, and ensures that muscles and joints work efficiently.

PRACTICE WORKSHEET 1: SKELETAL SYSTEM | CLASS 5 SCIENCE

E. Long Answer Questions (3)

1. **Explain the different types of joints in the human body with examples.**

Answer:

- **Hinge Joint:** Allows movement in one direction (e.g., knees and elbows).
- **Pivot Joint:** Allows rotational movement (e.g., neck).
- **Gliding Joint:** Enables sliding movements (e.g., wrists and ankles).
- **Ball-and-Socket Joint:** Permits movement in all directions (e.g., shoulders and hips).

2. **Describe the functions and structure of the backbone.**

Answer: The backbone, or vertebral column, consists of 33 small bones called vertebrae. It protects the spinal cord, supports the head, and provides flexibility to the body. The vertebrae are separated by discs that act as cushions and allow movement.

3. **How can we keep our bones and muscles healthy?**

Answer: To maintain healthy bones and muscles, eat a diet rich in calcium and protein, get enough Vitamin D, exercise regularly, maintain good posture, and avoid injuries by wearing protective gear during physical activities.