

## Bones And Bone Markings Quiz Answer Key PDF

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#### Which bone marking is a rounded articular projection?

- A. Crest
- C. Spine
- D. Fossa
- C. Condyle ✓**

#### Which bones are part of the appendicular skeleton? (Select all that apply)

- A. Femur ✓**
- C. Scapula ✓**
- D. Sternum
- C. Fibula

#### How do bone markings help in the identification of skeletal remains in forensic science?

**Bone markings assist in identifying skeletal remains by revealing characteristics such as age, sex, and ancestry, which are crucial for forensic analysis.**

#### Explain the role of red bone marrow in the skeletal system.

**Red bone marrow plays a vital role in the skeletal system by producing hematopoietic stem cells that differentiate into various blood cells, thereby supporting the body's circulatory and immune functions.**

#### Which type of bone is primarily responsible for protecting internal organs?

- A. Long bones
- C. Flat bones ✓**
- D. Irregular bones

C. Short bones

**What is the primary function of osteoblasts?**

- A. Break down bone tissue
- C. Form new bone tissue ✓**
- D. Produce red blood cells
- C. Store fat

**Which of the following is a depression in a bone?**

- A. Tubercule
- C. Fossa ✓**
- D. Line
- C. Crest

**Which bone cell is responsible for bone resorption?**

- A. Osteoblast
- C. Osteoclast ✓**
- D. Chondrocyte
- C. Osteocyte

**Which part of the bone contains the growth plate in children?**

- A. Diaphysis
- C. Metaphysis ✓**
- D. Periosteum
- C. Epiphysis

**What is the significance of the periosteum in bone health and repair?**

**The periosteum is significant for bone health and repair as it contains osteoblasts that facilitate bone growth and healing, and it provides a protective layer and attachment for muscles and tendons.**

**Discuss the impact of osteoporosis on bone structure and function.**

**Osteoporosis impacts bone structure by reducing bone density and altering the microarchitecture, which compromises the bone's strength and increases the risk of fractures.**

**Which bone markings are found on the femur? (Select all that apply)**

- A. Greater trochanter ✓**
- C. Lesser trochanter ✓**
- D. Olecranon
- C. Acetabulum

**Which bones are considered part of the axial skeleton? (Select all that apply)**

- A. Skull ✓**
- C. Vertebrae ✓**
- D. Ribs ✓**
- C. Humerus

**What is the name of the bone marking that allows the passage of nerves and blood vessels?**

- A. Tuberosity
- C. Trochanter
- D. Epicondyle
- C. Foramen ✓**

**Explain how the structure of a long bone supports its function in the body.**

**The long bone structure consists of a central medullary cavity that reduces weight, a thick outer cortex for strength, and spongy bone at the ends for shock absorption, all of which support its primary functions of movement, support, and blood cell production.**

**Which of the following are functions of bones? (Select all that apply)**

- A. Support ✓**
- C. Mineral storage ✓**
- D. Blood cell production ✓**

C. Hormone production

**What type of bone is the patella classified as?**

- A. Long bone
- C. Flat bone
- D. Sesamoid bone ✓**
- C. Short bone

**Identify the projections that serve as attachment points for muscles and ligaments. (Select all that apply)**

- A. Tuberosity ✓**
- C. Crest ✓**
- D. Foramen
- C. Fossa

**Which of the following are components of a long bone? (Select all that apply)**

- A. Diaphysis ✓**
- C. Epiphysis ✓**
- D. Sinus
- C. Medullary cavity ✓**

**Describe the differences between compact bone and spongy bone in terms of structure and function.**

**Compact bone has a solid structure with tightly packed osteons, providing strength and resistance to stress, whereas spongy bone has a porous, lattice-like structure that reduces weight and houses bone marrow for hematopoiesis.**