

### Skeletal System Worksheet

#### Matching I

- A. epiphysis      B. medullary cavity      C. carpal      D. articular cartilage      E. femur      F. endosteum  
 G. vertebra      H. diaphysis      I. patella      J. periosteum      K. scapulae

1. \_\_\_\_\_ thin membrane that lines the medullary cavity
2. \_\_\_\_\_ flat bone
3. \_\_\_\_\_ shaft of a long bone
4. \_\_\_\_\_ long bone
5. \_\_\_\_\_ thin layer that cushions jolts and blows
6. \_\_\_\_\_ short bone
7. \_\_\_\_\_ end of a long bone
8. \_\_\_\_\_ tubelike, hollow space in the diaphysis of long bones
9. \_\_\_\_\_ irregular bone
10. \_\_\_\_\_ outer covering of bone

#### Matching II

- A. trabeculae      B. compact      C. spongy      D. cartilage      E. osteocytes  
 F. canaliculi      G. lamellae      H. osteon

1. \_\_\_\_\_ dense bone tissue
2. \_\_\_\_\_ needlelike threads of spongy bone
3. \_\_\_\_\_ connect lacunae
4. \_\_\_\_\_ structural unit of compact bone
5. \_\_\_\_\_ bone cells
6. \_\_\_\_\_ concentric rings of bone

#### Multiple Choice

1. Which of the following is not a component of bone matrix?
  - a. Inorganic salts
  - b. Organic matrix
  - c. Collagenous fibers
  - d. They are all components
2. Small spaces in which bone cells lie are called
  - a. Lamellae
  - b. Lacunae
  - c. Canaliculi
  - d. Interstitial lamellae
3. The cells that produce the organic matrix in bone are
  - a. Chondrocytes
  - b. Osteoblasts
  - c. Osteocytes
  - d. Osteoclasts
4. The bones in an adult that include red bone marrow include all of the following except
  - a. Ribs
  - b. Tarsals
  - c. Pelvis
  - d. Femur
5. Low blood calcium evokes a response from
  - a. Calcitonin
  - b. Thyroid
  - c. Parathyroid hormone
  - d. None of the above
6. The primary ossification center is located at the
  - a. Epiphysis
  - b. Diaphysis
  - c. Articular cartilage
  - d. Periosteum
7. The epiphyseal plate is composed mostly of
  - a. Chondrocytes
  - b. Osteocytes
  - c. Osteoclasts
  - d. None of the above
8. The primary purpose of the epiphyseal plate is
  - a. Mending fractures
  - b. Enlarging the epiphysis
  - c. Providing bone strength
  - d. Lengthening long bones
9. Bone loss normally begins to exceed bone gain between the ages of
  - a. 30 and 35
  - b. 35 and 40
  - c. 55 and 60
  - d. 65 and 70
10. The first step to healing a bone fracture is
  - a. Callus formation
  - b. Fracture hematoma formation
  - c. Alignment of fracture
  - d. Collar formation
11. There are \_\_\_\_\_ types of bones that are classified by shape.
  - a. 2
  - b. 3
  - c. 4
  - d. 5

#### True/False – Correct the False Statements

1. \_\_\_\_\_ Haversian canals run lengthwise, whereas Volkmann's canals run transverse to the bone.
2. \_\_\_\_\_ Giant, multinucleated cells that are responsible for bone resorption are osteocytes.
3. \_\_\_\_\_ Bone marrow is not only found in the medullary cavities of long bones, but also in the spaces of cancellous bone.
4. \_\_\_\_\_ Calcitonin functions to stimulate osteoblasts and inhibit osteoclasts.
5. \_\_\_\_\_ Yellow marrow is found in almost all of the infant skeleton.
6. \_\_\_\_\_ Most bones are formed by intramembranous ossification.
7. \_\_\_\_\_ The addition of bone to its outer surface resulting in growth in diameter is called appositional growth.
8. \_\_\_\_\_ Osteogenesis and ossification both mean bone formation.