

Chapter 36 Skeletal, Muscular, and Integumentary Systems

Section 36–1 The Skeletal System (pages 921–925)

This section describes the skeletal system and its functions.

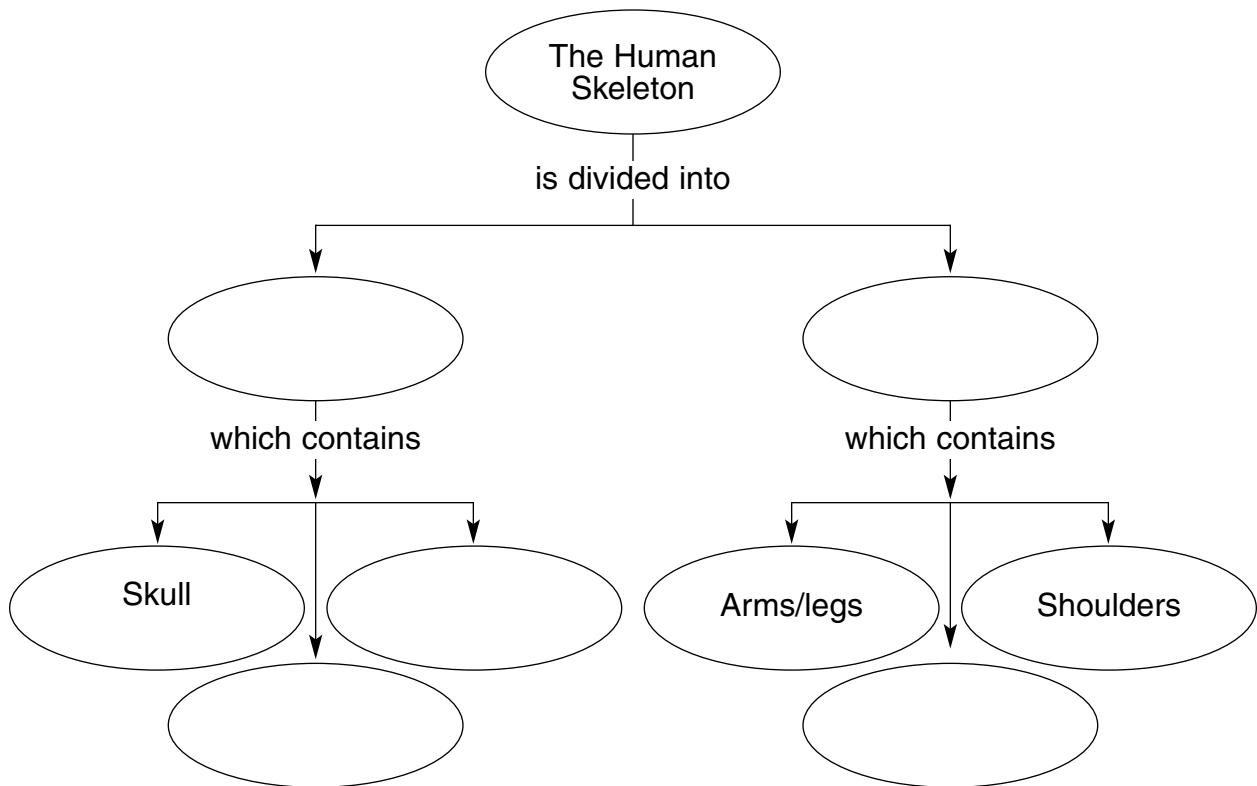
Introduction (page 921)

1. What forms the skeletal system? _____

The Skeleton (page 921)

2. List the functions of the skeletal system.
- a. _____ d. _____
 b. _____ e. _____
 c. _____
3. Is the following sentence true or false? Most bones act like levers on which muscles act to produce movement. _____
4. Is the following sentence true or false? There are 106 bones in the adult human skeleton.

5. Complete the concept map.



6. What is the general function of the axial skeleton? _____

Structure of Bones (page 922)

7. The two minerals that make up most of the mass of bone are _____ and _____.

8. Is the following sentence true or false? Bones are living tissue. _____

Match each structure in a bone with its description.

Structure	Description
_____ 9. Periosteum	a. Network of tubes running through bone
_____ 10. Compact bone	b. Soft tissue contained in bone cavities
_____ 11. Haversian canals	c. Tough layer of connective tissue surrounding bone
_____ 12. Spongy bone	d. Thick layer of dense bone beneath the periosteum
_____ 13. Bone marrow	e. Bone with a latticework structure

14. Cells that produce bone are called _____.

Development of Bones (pages 922–923)

15. The skeleton of an embryo is composed almost entirely of a type of connective tissue called _____.

16. The network of fibers in cartilage is made from two proteins called _____ and _____.

17. Circle the letter of each sentence that is true about cartilage.

- | | |
|-------------------------------|------------------------------|
| a. It contains blood vessels. | c. It cannot support weight. |
| b. It is dense and fibrous. | d. It is extremely flexible. |

18. Cartilage is replaced by bone during the process of bone formation called _____.

19. Is the following sentence true or false? By adulthood, all the cartilage in the body has been replaced by bone. _____

Types of Joints (page 924)

20. What is a joint? _____

21. List the three classifications of joints, based on their type of movement.

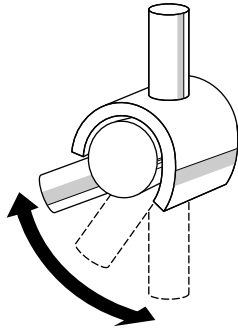
- a. _____
- b. _____
- c. _____

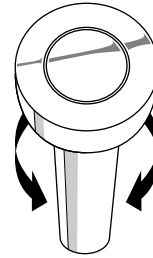
22. What are examples of immovable joints? _____

23. Is the following sentence true or false? The joints between the two bones of the lower leg are slightly movable joints. _____

24. Identify the type of freely movable joint represented in each of the drawings below.







25. Is the following sentence true or false? Ball-and-socket joints permit the widest range of movement. _____

Structure of Joints (pages 924–925)

26. Circle the letter of each sentence that is true about the structure of joints.
- a. Cartilage protects the ends of bones as they move against each other at joints.
 - b. Ligaments hold bones together at joints.
 - c. Synovial fluid prevents the ends of bones from slipping past each other at joints.
 - d. A bursa is a swelling caused by inflammation of a joint.

Skeletal System Disorders (page 925)

27. Inflammation of a bursa is called _____.
28. A serious disorder that involves inflammation of one or more joints is _____.