

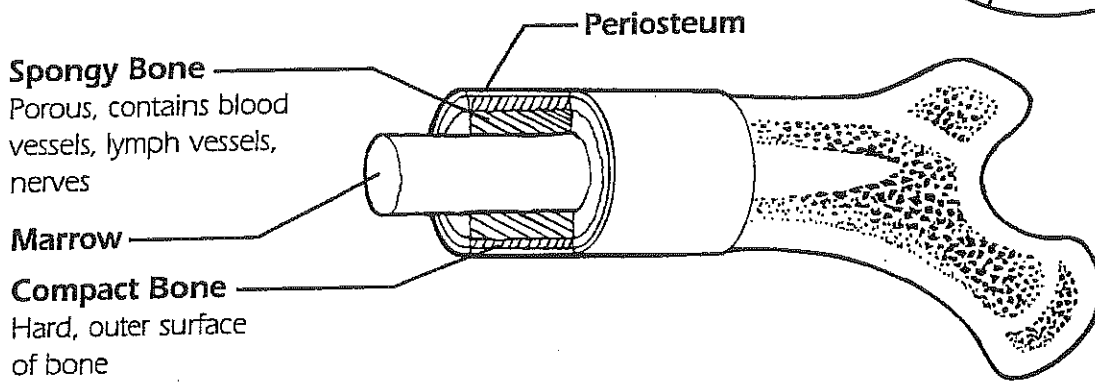
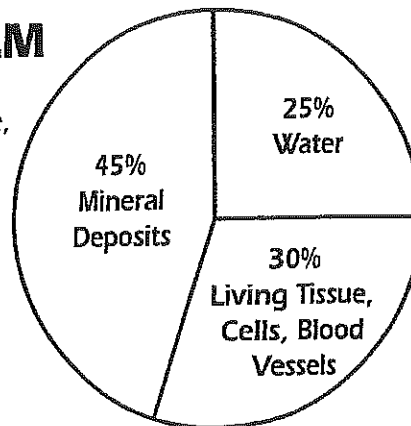
BODY SYSTEMS

SKELETAL SYSTEM

The skeletal system supports the structure of the body, gives it shape, protects vital organs, and serves as an attachment for the muscles.

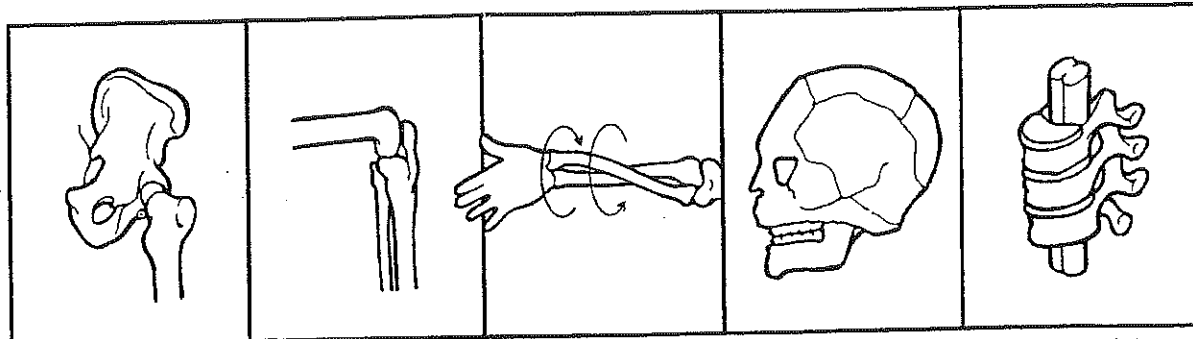
Bones are alive. They take in food (calcium, phosphates) through blood. They grow. They repair themselves.

Bones can be divided into living tissue, cells, blood vessels, mineral deposits, and water.



Periosteum—Soft, thin substance that covers and protects the bone.
Compact Bone—Tough, hard bone that can heal itself when broken.
Spongy Bone—Contains red marrow which produces red blood cells that carry oxygen and carbon dioxide throughout the body.
Marrow—Soft, inner center of bones containing blood vessels and fat cells. Manufactures red blood cells.

Kinds of Joints



Ball and Socket
(hips, shoulders)

Hinge Joint
(elbows, knees)

Pivot Joint
(head, arms)

Immovable Joint
(skull)

Gliding Joint
(fingers, spine)

BODY SYSTEMS

SKELETAL SYSTEM

The human skeleton contains 206 bones.

1. List the main functions of the skeleton.

- A. _____
- B. _____
- C. _____
- D. _____

2. The bones of the skeleton are held together at the joints by ligaments and tendons. Bones are covered with a special tissue called _____

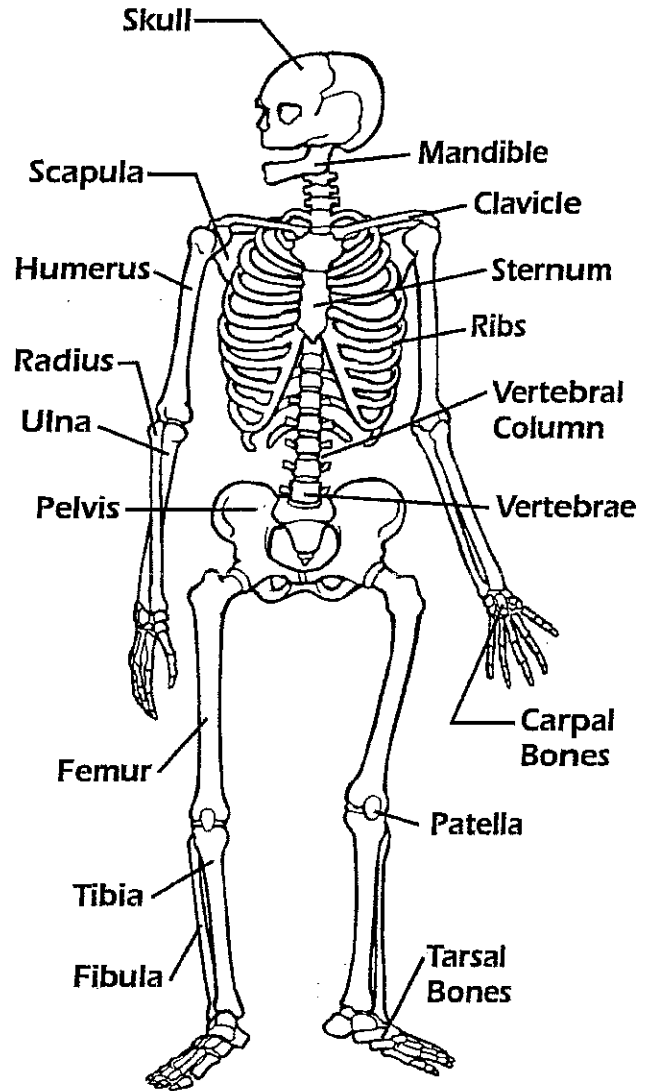
The skeletal system is divided into two parts:

- 1. **Axial Skeleton**
 skull (protects brain)
 ribs (protect lungs, heart)
 spinal column (houses and protects spinal cord)
- 2. **Appendicular Skeleton**
 legs
 pelvis
 arms
 shoulders

Our joints are covered with a thick pad of smooth cartilage which acts as a buffer between the hard bones.

There are four main shapes of bones in the skeleton:

- flat**—ribs, shoulder blades
- irregular**—vertebrae, tiny ear bones
- short**—wrist, ankle
- long**—arms, legs, fingers



- 3. Draw a circle around four ball and socket joints.
- 4. Draw an X on four hinge joints.
- 5. Draw a star * on two gliding joints.
- 6. Draw two arrows → showing where a pivot joint is located.
- 7. Draw an arrow → showing where the immovable joints are located.

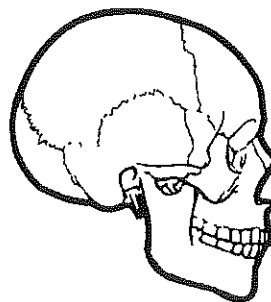
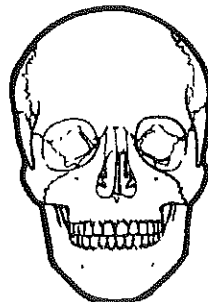
BODY SYSTEMS

SKELETAL SYSTEM

Use the information on pages 19 and 20 to complete these sentences.

1. The collarbone is called the _____.
2. The patella is better known as your _____.
3. The _____ and _____ make up the lower leg.
4. The _____ and _____ make up the lower arm.
5. Ball and socket joints can be found in the _____ and _____.
6. The _____ has bones in it that have fused together and are immovable.
7. Your breastbone is also known as your _____.
8. The hipbone is known as the _____.
9. The thighbone is a long bone called the _____.
10. The skull is composed of 22 bones. All but one are immovable. Name the one bone that can move in your skull. _____
11. Explain why "hinge" is an appropriate name for the joints at your knees and elbows.

12. Name the four main functions of the skeleton.
 A. _____
 B. _____
 C. _____
 D. _____
13. The skeleton is made up of _____ bones.
14. Name the two parts of the skeletal system.
 A. _____ B. _____



BODY SYSTEMS

REVIEW

Write the letter of the correct answer on the blank in front of each word.

- | | |
|--------------------------------|--|
| 1. _____ Marrow | A. smooth tissue that acts as a buffer between bones |
| 2. _____ Skeleton | B. large bunch of nerves that pass through your spine |
| 3. _____ Calcium | C. part of your skeleton that includes skull, ribs, and spinal cord |
| 4. _____ Periosteum | D. substance in the center of the bones |
| 5. _____ Ligament | E. the outer covering of bones |
| 6. _____ Cartilage | F. the irregular bones that make up the spinal column |
| 7. _____ Axial skeleton | G. tissue that fastens your bones together |
| 8. _____ Appendicular skeleton | H. the part of your skeleton made up of your arms, legs, pelvis, and shoulders |
| 9. _____ Vertebrae | I. framework of your body |
| 10. _____ Spinal cord | J. the mineral found in bones |

Answer the following questions.

11. Why are joints necessary? _____

12. Why is your backbone so important to you? _____

13. How does your skeleton compare to the steel framework of a skyscraper?

14. Why do bones of older people break more easily than those of a younger person?

15. Explain why a proper diet is important to your bones. _____

