

Skeletal System Worksheet

1. Write a definition for each of the following terms.

(a) bone marrow

(b) cartilage

(c) joint

(d) fracture

2. Fill in the blanks in the following sentences.

(a) All of your new blood is generated in your _____.

(b) The average human body has _____ bones.

(c) _____ bone marrow produces blood cells and _____ bone marrow stores energy as fat.

(d) _____ are the meeting places between two or more bones.

(e) Body movements happen when muscles _____ across joints, moving one bone towards the other.

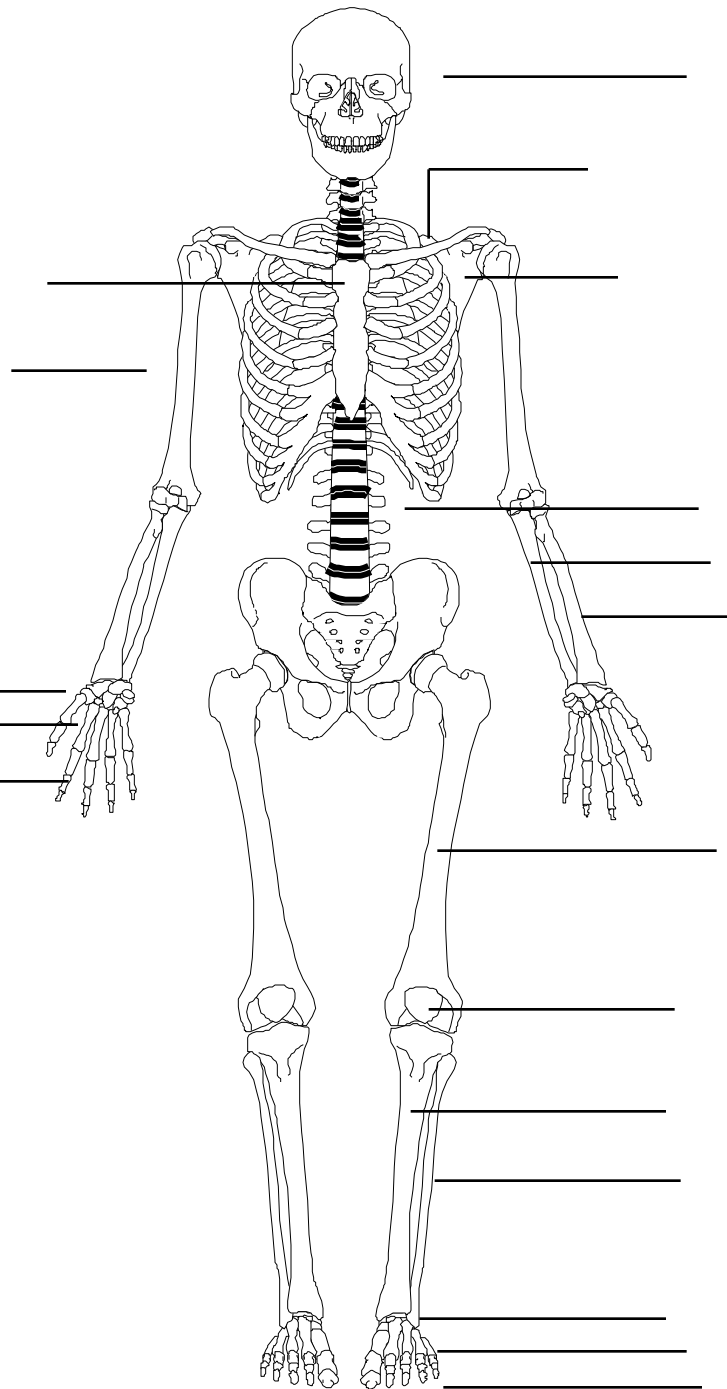
(f) Most of your vital organs are protected by your _____.

(g) The synovial joints are the freely moving joints that make up much of your body. The purpose of the synovial fluid in these joints is to _____ the joint.

THE SKELETAL AND MUSCULAR SYSTEMS
The Skeleton

Directions: Place the words listed below next to the lines on the skeletal diagram.

- | |
|------------------|
| Clavicle |
| Humerous |
| Sternum |
| Vertebral column |
| Tibia |
| Femur |
| Patella |
| Fibula |
| Skull |
| Scapula |
| Ulna |
| Radius |
| Phalanges |
| Metacarpals |
| Carpals |
| Phalanges |
| Metatarsals |
| Tarsals |



THE SKELETAL AND MUSCULAR SYSTEMS

Joints

A joint is a place at which two bones meet. There are two kinds of joints, called movable and immovable. Immovable joints are found where bones have fused together, such as in the skull. Moveable joints allow for some kind of movement between the two bones. Bones do not bend, so movement can only occur at the joints.

There are different kinds of moveable joints. The most common are the ball-and-socket joint, the hinge joint, the pivot joint, and the ellipsoid joint. The pivot joint in the neck is responsible for our ability to raise and lower our heads or turn our heads from side to side. The ellipsoid joint in your wrist allows you to wave your hand. The hinge joint of the elbows allows for forward and backward motion. The ball-and-socket joint of the shoulders allows for movement in many directions.

Directions: Compare the movement of the hinge and ball-and-socket joints.

1. Move your arm without moving the upper arm at the shoulder. Describe the kind of movement permitted by the hinge joint of your elbow.
2. Now move your arm, concentrating on the variety of movements permitted by the ball-and-socket joint of the shoulder. Write down observations of the kinds of movements possible.
3. How does the movement of the hinge joint of the elbow compare with the movement of the ball-and-socket of the shoulder?
4. The knees and hips are similar to the arms and shoulders. Which represents the hinge joint and which represents the ball-and-socket joint?
5. Why would a ball-and-socket joint at the knees create problems for walking?