

# STRUCTURE AND FUNCTION OF THE SKELETAL SYSTEM (1.1A)

What do I need to know?	How do I feel about this?		
	Confident	Average	Unsure
Know the location of: <ul style="list-style-type: none"> <li>• Cranium</li> <li>• Vertebrae</li> <li>• Ribs</li> <li>• Sternum</li> <li>• Clavicle</li> <li>• Scapula</li> <li>• Pelvis</li> <li>• Humerus</li> <li>• Radius</li> <li>• Ulna</li> <li>• Carpals</li> <li>• Metacarpals</li> <li>• Phalanges</li> <li>• Femur</li> <li>• Patella</li> <li>• Tibia</li> <li>• Fibula</li> <li>• Femur</li> <li>• Tarsals</li> <li>• Metatarsals</li> </ul>			
Know the functions of the skeleton: (support/protect/move/store minerals/blood production).			
Describe a synovial joint			
Describe hinge joints (elbow/knee) including articulating bones.			
Describe ball and socket joints (elbow/knee) including articulating bones.			
Know types of movement (flexion/extension/abduction/adduction/rotation/circumduction)			
Know the role of ligaments, cartilage and tendons.			

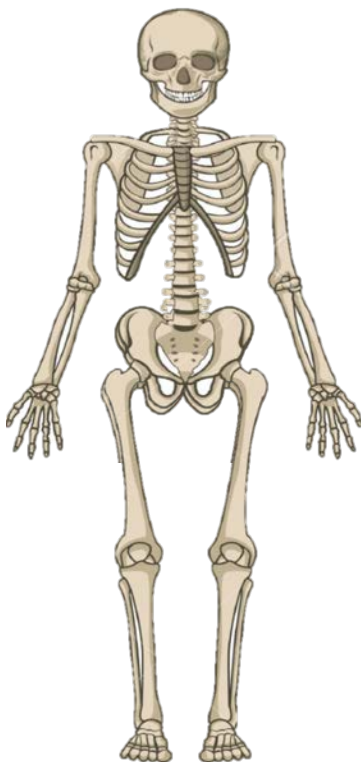
## FUNCTIONS OF THE SKELETON

What are the functions of the skeleton?

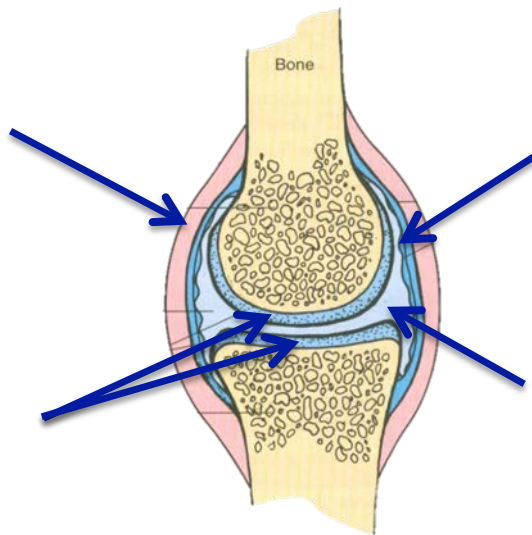
- 1.
- 2.
- 3.
- 4.
- 5.

## **LABELLING A SKELETON**

Label the skeleton below.



## WHAT IS A SYNOVIAL JOINT



## TYPES OF MOVEMENT

Describe what each of the following movements does and at which joint, give an example.

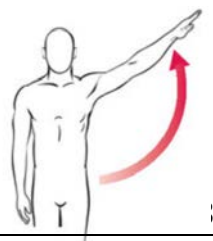
### 1. Flexion



### 2. Extension



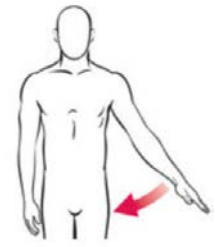
### 3. Abduction



#### 4. Adduction

.....

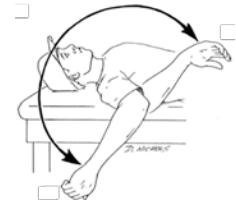
.....



#### 5. Circumduction

.....

.....



#### 6. Rotation

.....

.....



### HINGE JOINTS

First ball and socket joint:

.....

Articulating bones:

.....

Second ball and socket joint:

.....

Articulating bones:

.....

### BALL AND SOCKET JOINT

First hinge joint:

.....

Articulating bones:

.....

Second hinge joint:

.....

Articulating bones:

.....

## LIGAMENTS, CARTILAGE AND TENDONS

What is the role of?

Ligaments

.....

.....

.....

Cartilage

.....

.....

.....

Tendons

.....

.....

.....

## SKELETAL SYSTEM EXAM QUESTIONS

Answer **all** the questions.

1. Which one of the following is a function of the skeleton?

(a) To deliver oxygen to working muscles

☐

(b) To produce lactic acid

☐

(c) To store minerals

☐

(d) To create a good image

☐

[1]

2. Giving a practical example for each, describe what is meant by adduction and abduction in joint movements.

Adduction

.....

.....

.....

.....

Abduction

.....

.....

.....

.....

[4]

3. Which one of the following is an example of a hinge joint?

(a) The elbow joint

☐

(b) The shoulder joint

☐

(c) The spinal column

☐

(d) The hip joint

☐

[1]

4. Which one of the following is **not** a function of the skeleton?

(a) To protect internal organs

☐

(b) To provide the lungs with a blood supply

☐

(c) To give the body its shape

☐

(d) To provide leverage for muscle movement

☐

[1]

5. Which one of the following is an example of a ball and socket joint?

(a) Ankle joint

☐

(b) Elbow joint

☐

(c) Shoulder joint

☐

(d) Neck joint

☐

[1]

6. Describe **two** roles of ligaments within joints when performing a physical activity.

.....

.....

.....

.....

[2]

7. Which one of the following is an example of adduction?

(a) Moving your leg out to the side to gain balance in a gymnastic routine

☐

(b) Bending your arms when performing a biceps curl in weight training

☐

(c) Throwing your head back when breathing in backstroke

☐

(d) Moving both arms towards your body during the breast stroke

☐

[1]

8. Which **one** of the following statements is false?  
Put a tick (✓) in the box next to the correct answer.

- (A) The movement at the elbow joint during a biceps curl is an example of flexion and extension. ☐
- (B) The deltoid at the shoulder joint during a biceps curl is an example of a fixator. ☐
- (C) Most of the lever systems that provide movement in sport are examples of third class levers. ☐
- (D) An example of a second-class lever is a tennis player using their elbow joint during a forehand shot. ☐

[1]

9. Which one of the following is not a function of the skeleton?

- (a) To give support to the body ☐
- (b) To protect the heart and lungs ☐
- (c) To ensure enough oxygen reaches the working muscles ☐
- (d) To produce red blood cells ☐

[1]

10. Which one of the following is an example of a hinge joint?

- (a) Shoulder ☐
- (b) Neck ☐
- (c) Elbow ☐
- (d) Wrist ☐

[1]



11. The knee is an example of a synovial joint.

Complete the table below for the knee joint.

Type of joint (other than synovial)	Articulating bones	Movements available
(i).....	Femur and (ii).....	(iii)..... and Extension

[3]

12. Which one of the following is not an articulating bone of the elbow joint?  
Put a tick (☑) in the box next to the correct answer.

(A) Humerus

☐

(B) radius

☐

(C) clavicle

☐

(D) ulna

☐

[1]

END OF QUESTION PAPER