Unit 1

THE SKELETAL SYSTEM

OBJECTIVES

- Pupils will be able to locate and name the main bones in the human body
- Pupils will be able to name different types of bones giving examples ; namely, long, short, flat and irregular.
- Understand the four functions of the skeleton; namely, shape and support, movement, protection and blood production.

Starter

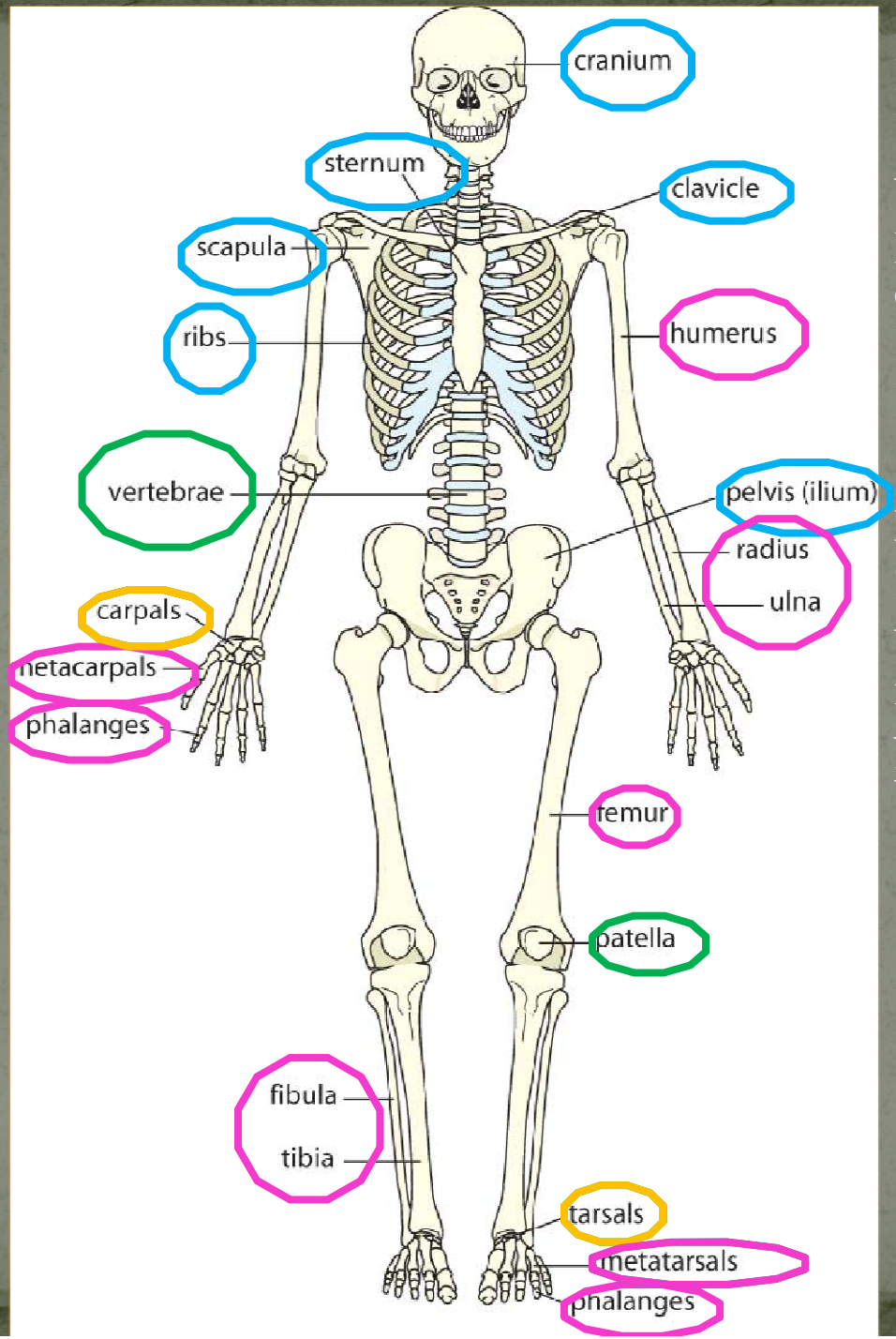
- Using the labels provided, split into two groups and choose a model.
- The group must stick the labels to the correct bones on their model
- The bones to be included:

Tibia	Fibula	Phlanges	Patella	Pelvis
Femur	Tarsals	Metatarsals	Ulna	Carpals
Metacarpals	Radius	Vertabrae	Sternum	Ribs
Humerus	Clavicle	Scapula	Cranium	

There are 206 bones in the body
4 Types of Bone – Long, Short, Flat, Irregular

The Skeleton has 4 Functions

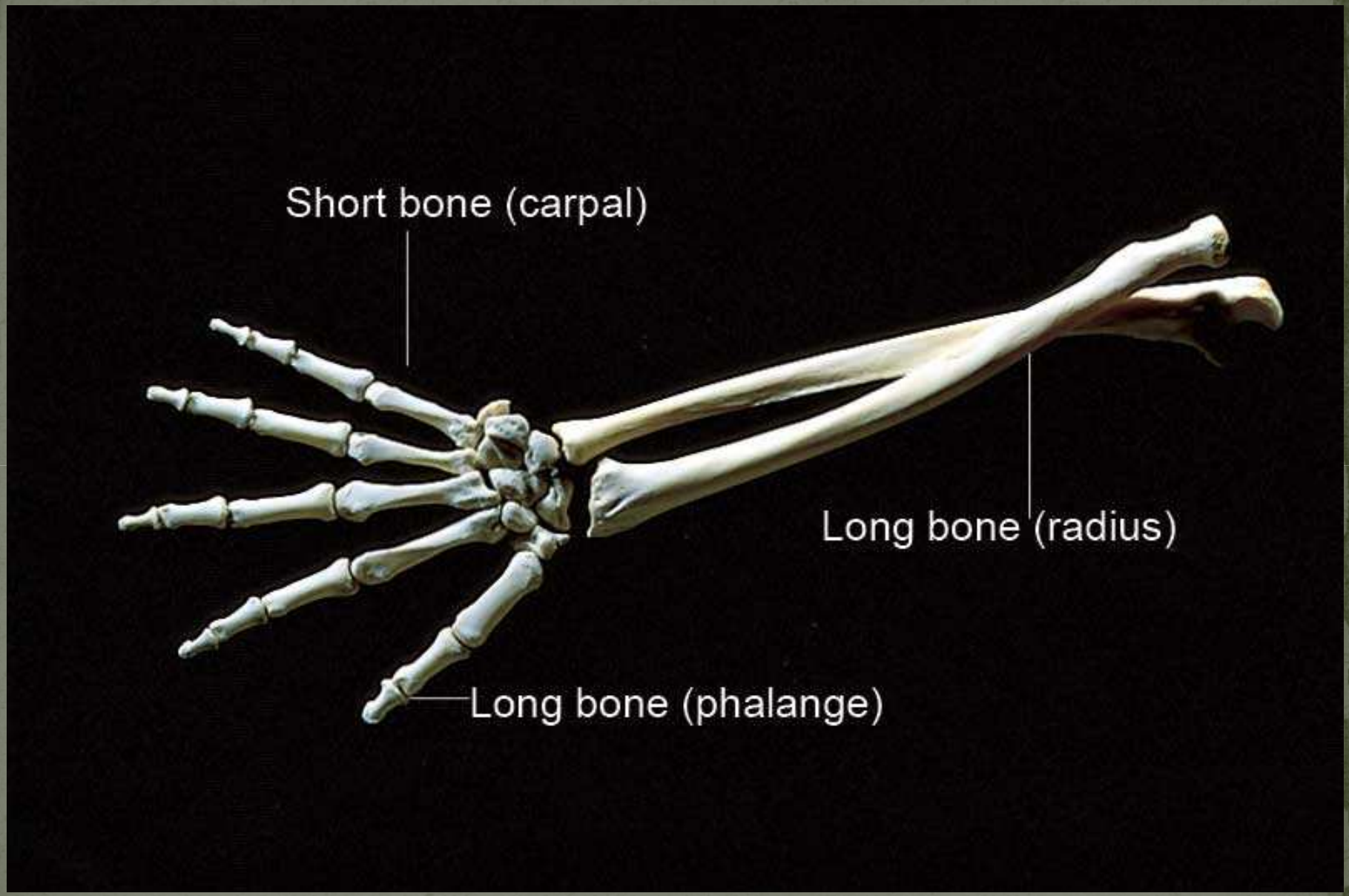
PROTECTION
Parts of the body are delicate and can be easily damaged
Brain / Cranium
Spinal Cord / Vertebrae
Heart and lungs/ ribs and sternum

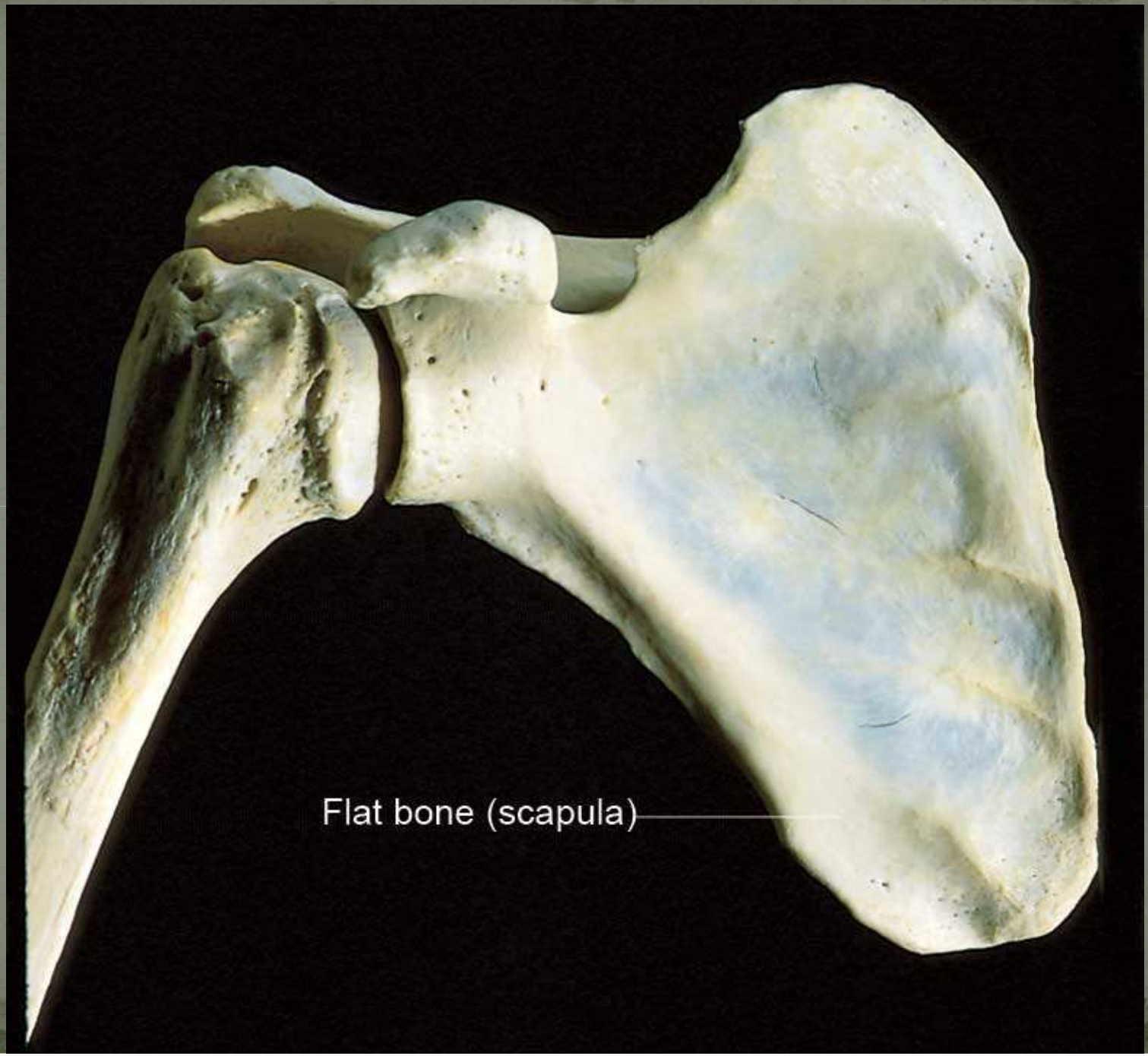


BLOOD FORMATION
Inside the large bones the bone marrow produces red blood cells.
Humerus, ribs and Femur

MOVEMENT
Some bones are held together by freely moveable joints. So you can bend your body and move about

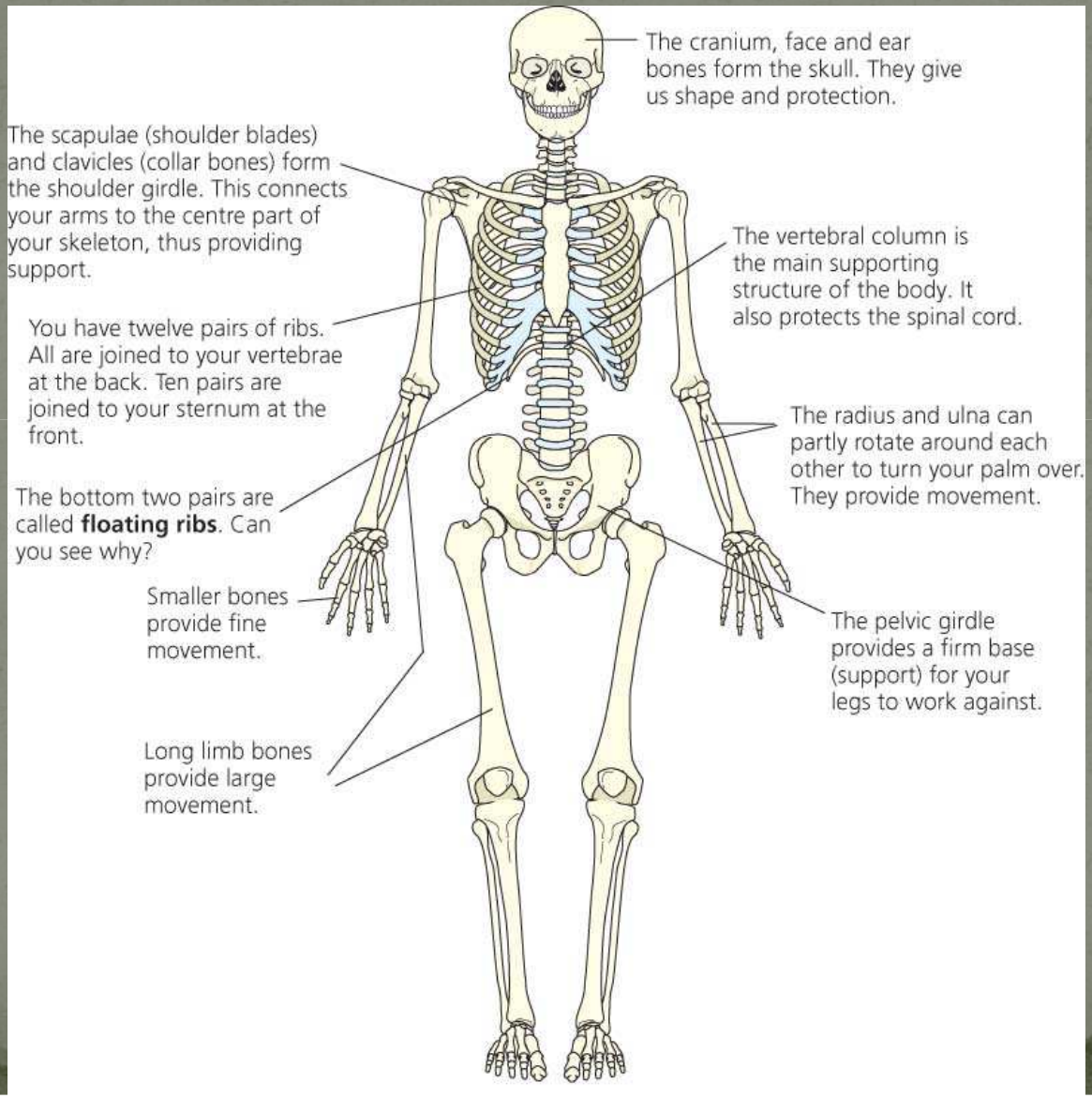
SUPPORT
The skeleton gives the body shape otherwise it would be flabby and shapeless. Holds vital organs in place by providing a framework


Short bone (carpal)
Long bone (radius)
Long bone (phalange)

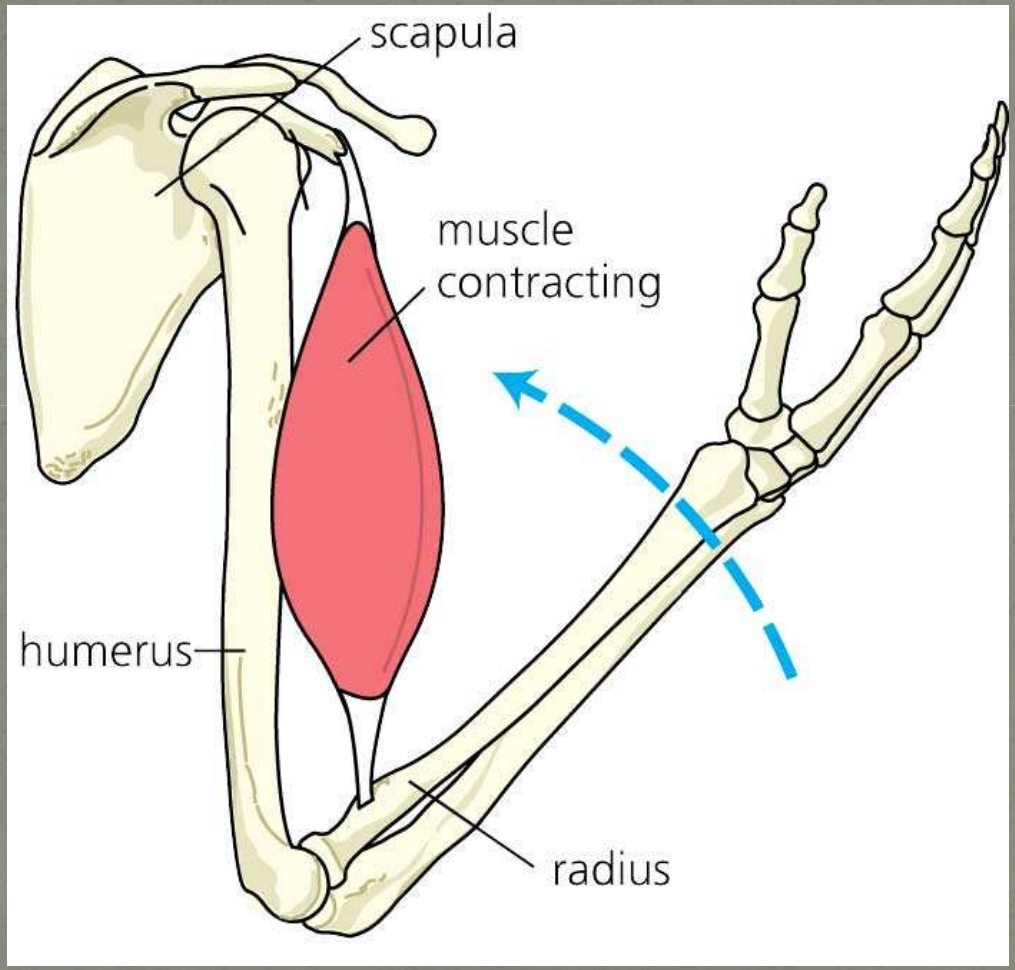

Flat bone (scapula)


irregular bone
(vertebra)

Functions of the Skeleton



Movement

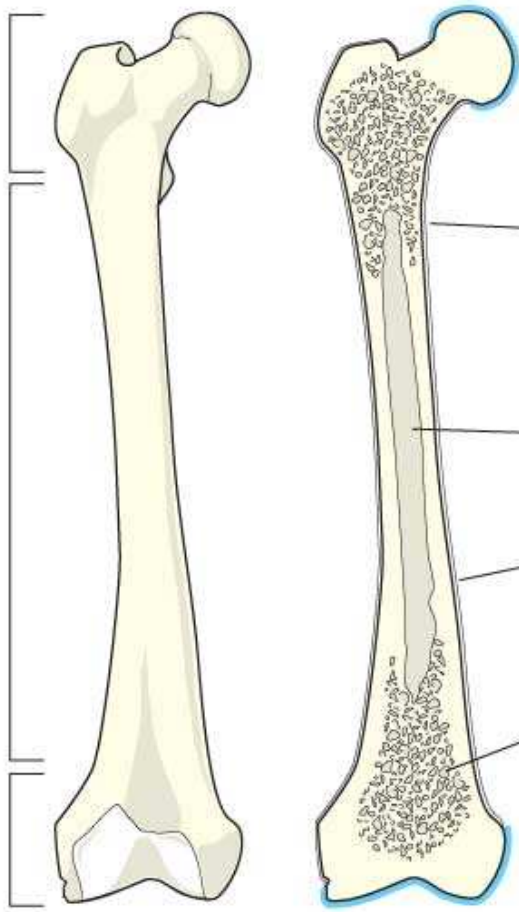


Bones

the end part is called the ***epiphysis***

the long shaft is called the ***diaphysis***

epiphysis



cartilage. This is smooth and slippery, a bit like thick white plastic. It protects the ends of the bone where it meets other bones and stops them rubbing together.

compact bone. This is hard and strong. It is made of fibres cemented with calcium salts. It protects the bone from breakages as this is the thinnest part of the bone.

the marrow cavity. This is filled with a soft yellow pulp called marrow. It makes blood cells.

the periosteum. This is a tough fibrous skin that covers all except the ends of the bone. It helps tendons join to the bone and also helps in growth.

spongy bone. This is also made of calcium salts and fibres. It is hard, light and very strong. In some spongy bone the holes are filled with red marrow, which makes blood cells. It also helps to absorb shock.

Activity

- Interactive activity