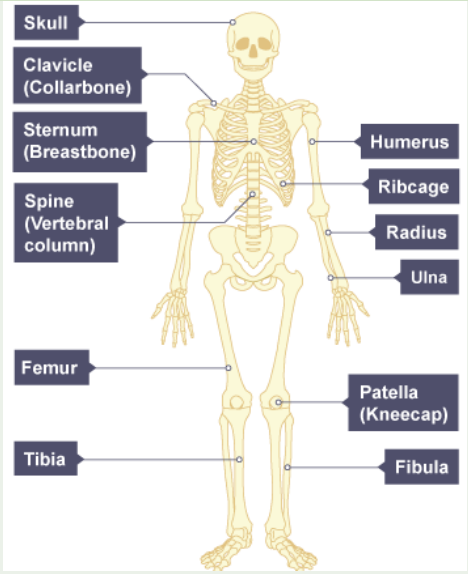
Movement

Key words

Joints	Places where bone meet
Bone marrow	Tissue found inside some bones where new blood cells are made
Ligaments	Connect bones in joints
Tendons	Connect muscles to bones
Cartilage	Smooth tissue found at the end of bones, which reduces friction between them
Antagonistic muscle pair	Muscles working in unison to create movement

Key diagram – Skeletal system in the body



Key knowledge

The parts of the human skeleton work as a system for support, protection, movement and the production of new blood cells.

Our skeleton is made of more than 200 bones. Calcium and other minerals make the bone strong but slightly flexible.

Bone is a living tissue with a blood supply. It is constantly being dissolved and formed, and it can repair itself if a bone is broken.

Antagonistic pairs of muscles create movement when one contracts and the other relaxes.

Synovial fluid lubricates the joint so it can move smoothly

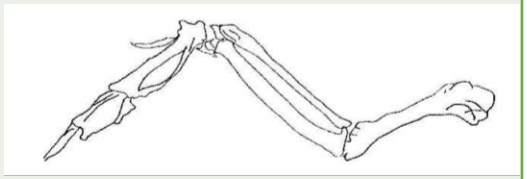
Synovial membrane produces synovial fluid.

Cartilage covers the end of the bones at the joint, acting as a shock absorber and prevents friction.

Practical – Chicken wing Dissection

Safety

- Raw chicken may be contaminated by Salmonella, a pathogenic bacteria. Keep your hands away from your face and mouth throughout this investigation.
- Be cautious when using sharp dissection tools
- Wash your hands when finished with the activity



What to do

1. Start from the fattest end of the wing. Gently lift and pull the skin away from the meat underneath. The skin is attached to the meat by thin membrane.
2. Use your scissors to gently cut this membrane allowing the skin to lift off. This meat is actually chicken muscle. Remove the skin down to the first joint and try not to cut any of the muscle.
3. You should now be able to see several large muscles around the bone. Hold the wing at the shoulder and pull on the muscles of the upper wing one at a time. Observe what happens.

Key process – Antagonistic muscle pair