

SUBJECT: NCFE health and fitness

UNIT: Content area 1 Structure and functions of the body systems



Types of joints

Name of joint	Description and examples
Fixed joints	These don't allow for movement, for example, the joints in your cranium and pelvis.
Slightly moveable joints	These joints are separated by a layer of connective tissue. For example, the joints between the vertebrae have a cartilage in which allows for little movement.
Synovial joints	This joins bones together with fibrous joint capsule and a layer of cartilage that surrounds the end of the bones. The fibrous capsule forms a synovial cavity that encloses the ends of the bones. This cavity is filled with synovial fluid and allows the joint to move freely.
Pivot joint	Where one end of a bone fits into a ring-shaped end of another bone. This allows for rotational turning movements. An example of this is at the top of the vertebrae which allows the head to rotate.
Condyloid joint	Allows joints to move side to side, forwards and backwards. Can be found where the carpals meet the radius.
Saddle joint	One bone is shaped like a saddle and rests on the other bone. Can be found at the bottom of the thumb and allows the thumb to move towards and away from the fingers.
Gliding joint	Allow limited movement of side to side, back and forth between flat surfaces. Examples are clavicle and the scapula.
Ball and socket joint	One bone has a ball on the end and it meets another bone that has a depression inside it. Allows the joint to move in all directions side to side, forward and backwards and rotate. Can be found in the hip and shoulder joints.
Hinge joint	Shaped to allow movements in one direction, forwards and backwards. Can be found in the knee, ankle and elbow.

Joint actions

Action	Description
Flexion	Where the angle between a joint is getting smaller (also known as bending). Examples include flexion at the elbow to tense the bicep and flexion at the knee when doing squats.
Extension	Where the angle between a joint is getting bigger (also known as straightening). At the elbow when doing a push up.
Rotation	A twisting or pivoting movement at a joint. Twisting head from side to side or rotating at the shoulder when serving in tennis.
Abduction	Where a part of the body moves away from the midline of the body. For example, raising lateral raises.
Adduction	Where a part of the body moves backwards the midline of the body.
Plantar flexion	The movement at the foot where the toes point downwards. For example, when push during a run.
Dorsiflexion	Where the toes point upwards towards the shins. For example, when preforming box jumps.

