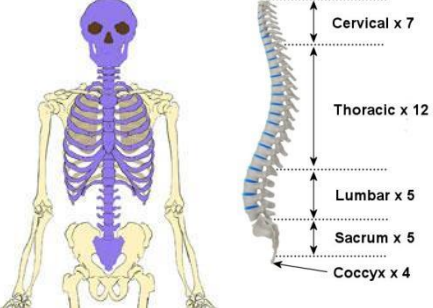

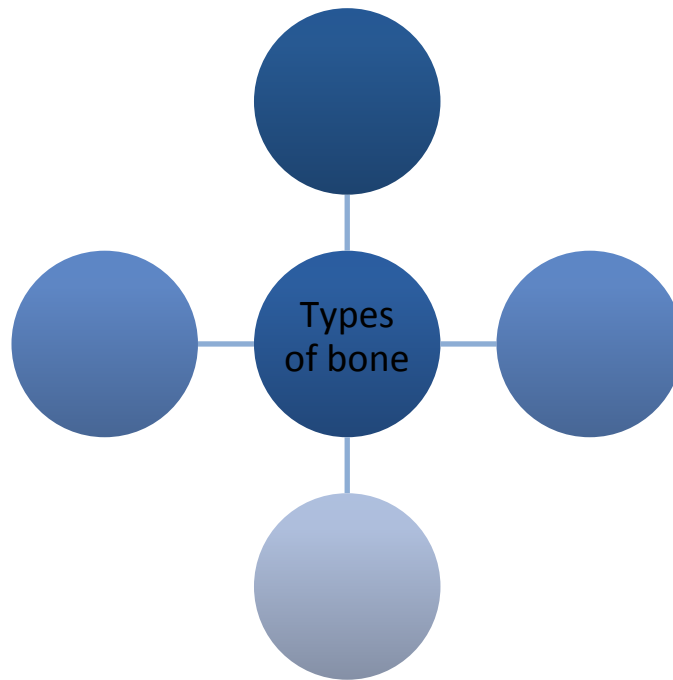


Unit 1: Anatomy

'Progress depends on effort not ability'

	AXIAL FUNCTION
	APPENDICULAR FUNCTION

1.1.3. State the four types of bones giving examples



1.1.4. Draw and annotate the structure of a long bone

Long Bone		Periosteum
Epiphysis		Spongy bone
		Articular cartilage
Diaphysis		Diaphysis
		Epiphysis
Epiphysis		Bone marrow

Unit 1: Anatomy

'Progress depends on effort not ability'

	Medullary Cavity / Marrow cavity (from above diagram)

1.1.5. Define the following anatomical terms

Term **Definition with example using bones**

Proximal	
Distal	
Superior	
Inferior	
Medial	
Lateral	
Anterior	
Posterior	

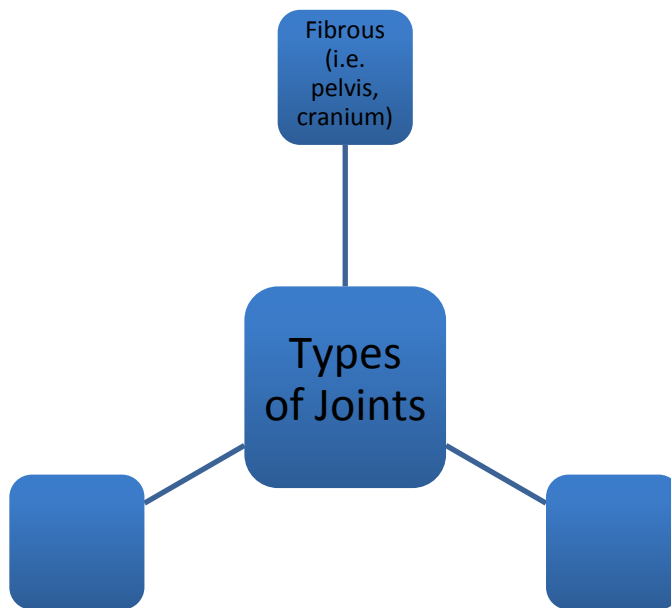
1.1.6 Outline the function of connective tissue

Connective tissue	Function
Tendons	
Ligaments	
cartilage	

1.1.7. Definition of a joint

Joint	
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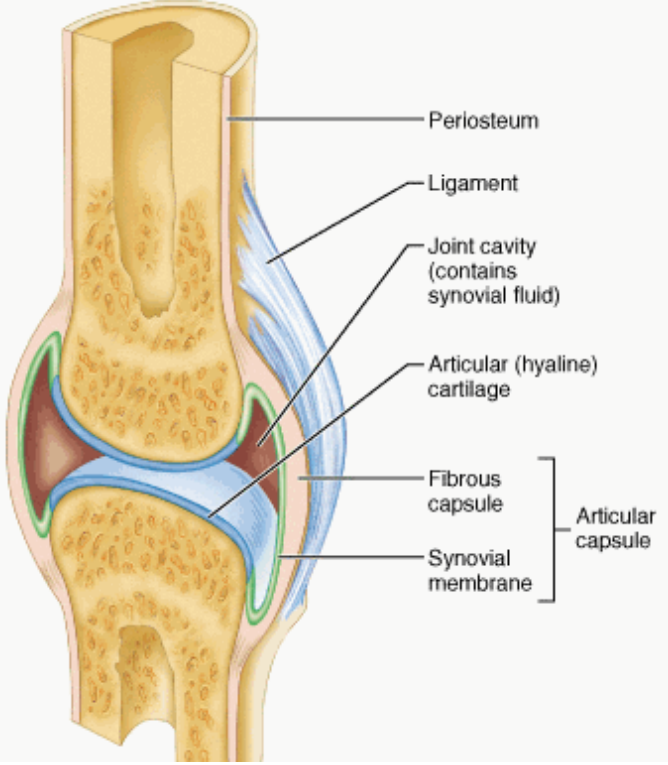
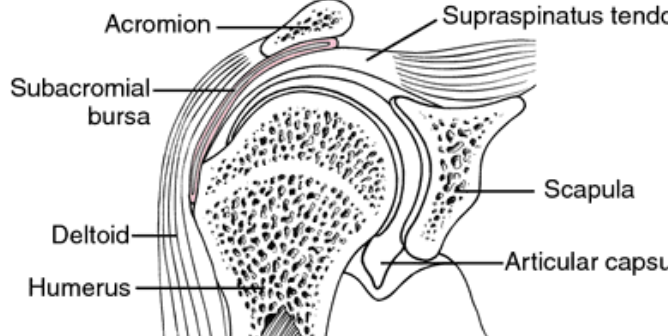
1.1.8. Types of joint with examples

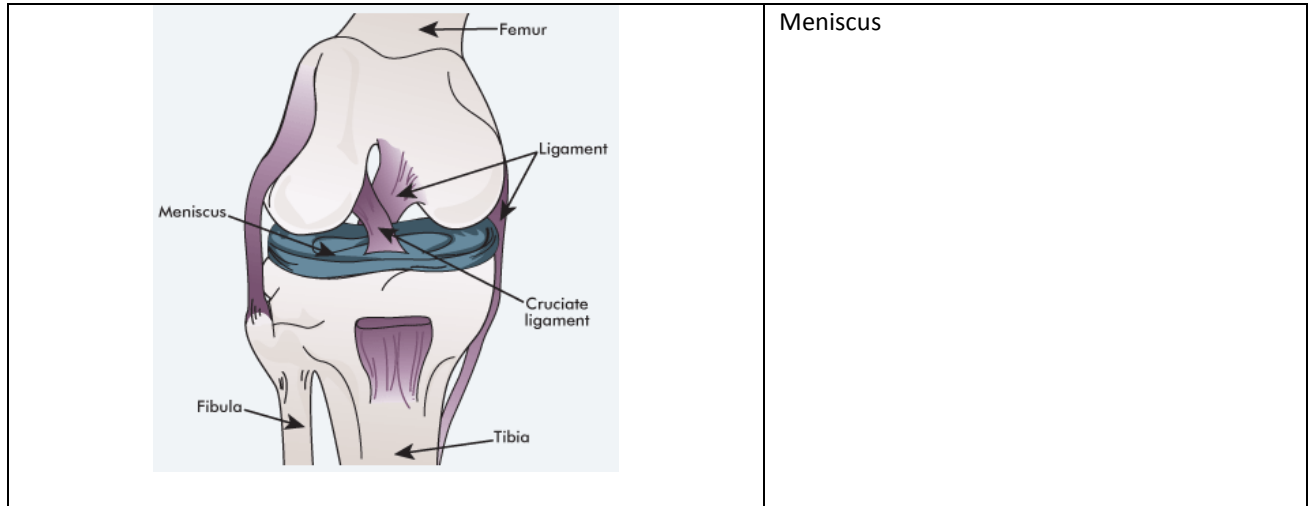


1.1.9. Outline the difference type of movement permitted at the types of joints

Type of Joint	Movement permitted

1.1.10. Outline the features of a synovial joint

	<table border="1"> <tr><td>Articular cartilage</td></tr> <tr><td> </td></tr> <tr><td>Synovial/articular/joint capsule</td></tr> <tr><td> </td></tr> <tr><td>Synovial membrane</td></tr> <tr><td> </td></tr> <tr><td>Synovial fluid</td></tr> <tr><td> </td></tr> <tr><td>ligaments</td></tr> <tr><td> </td></tr> </table>	Articular cartilage		Synovial/articular/joint capsule		Synovial membrane		Synovial fluid		ligaments	
Articular cartilage											
Synovial/articular/joint capsule											
Synovial membrane											
Synovial fluid											
ligaments											
	<table border="1"> <tr><td>Bursae</td></tr> <tr><td> </td></tr> </table>	Bursae									
Bursae											



Meniscus

Joint actions

In table 3.1 the movement ranges of synovial joints are classified according to their axes of movement. This means that joints that allow only one plane of movement are identified as a one-axis joint, a two-axes joint has movement within any two planes, whereas a three-axes joint has movement in all three planes.

Table 3.1 – summary of synovial joint types and movement ranges

synovial joint types	movement range	example body place: articulating bones
ball and socket	3 axes, flexion / extension, abduction / adduction, rotation, circumduction	hip: femur, acetabulum of pelvis. shoulder: scapula, humerus.
hinge	1 axis, flexion / extension	knee: femur, tibia. elbow: humerus, radius, ulna.
pivot	1 axis, rotation	spine: atlas: odontoid process of axis (turns head side to side). elbow: proximal ends of radius and ulna.
condyloid (modified ball and socket)	2 axes, flexion / extension, abduction / adduction = circumduction	knuckles: joint of fingers: metacarpals, phalanges. wrist: radius, carpals.
saddle	2 axes, flexion / extension, abduction / adduction = circumduction	joint at base of thumb: carpal, metacarpal.
gliding	a little movement in all directions	centre of chest: clavicle, sternum. spine: articulating surfaces. wrist: carpals. ankle: tarsals.

Unit 1.1	The skeletal system
Key learning intention (KLI)	To understand and explain how the skeletal system functions and how it's classified.
Success criteria	I can label a skeleton giving details about types of bone, joints, movements and function.

Movement patterns at joints, the terminology

The possible ranges of movements within a synovial joint (figure 3.6) vary according to the shape of the articular surfaces and therefore according to the joint type. These movement patterns have been categorised according to the relevant body planes.

Movement patterns in the sagittal (median) plane:

Flexion means to bend, resulting in a decreased angle around the joint – for example, bending of the knee.

Extension means to straighten, resulting in an increased angle around the joint – for example, straightening of the knee from a bent-legged to straight-legged position.

Hyperextension is the forced extension of a joint beyond its normal range of motion – for example, the arched spine that is created in the flight phase of the Fosbury Flop high jump technique.

Plantarflexion involves extending the toes thereby increasing the angle at the ankle – for example, standing on tip-toes.

Dorsiflexion describes movement of the foot towards the shin – for example, walking on one's heels.

Bones to Know:

Axial	Appendicular

Unit 1: Anatomy

*'Progress
depends on
effort not
ability'*



DISCRETE-SERIAL-
CONTINUOUS