


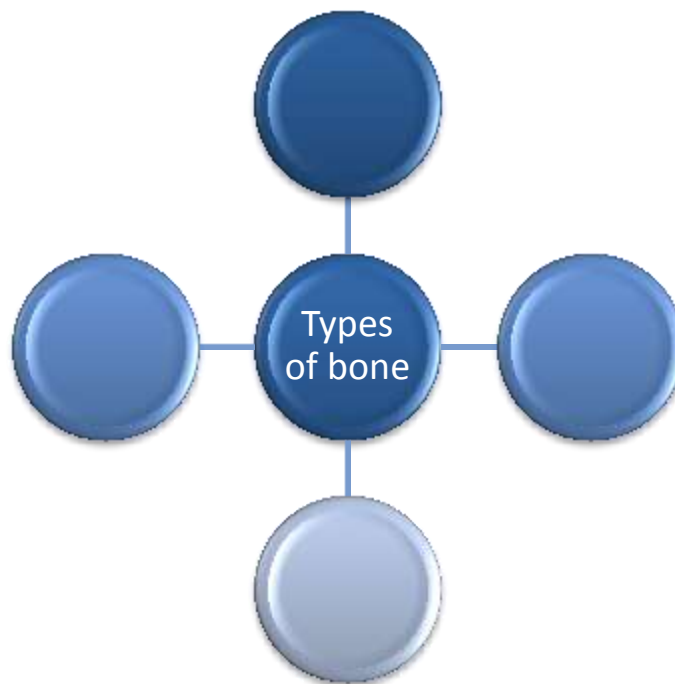
This review represents the IB Course Outline assessment statements. This is NOT exactly what or how a question will be asked on the summative. Please refer to the course outline statements to determine the level of each question and your blue command terms sheet to see the various command terms that may be used with the assessment statement. The curriculum content is identified in the course outline – this is only a review. Any items with a * are items taught in class and important to the course content.

1.1.1-2. DISTINGUISH between the axial and appendicular skeleton – note how the systems differ in function

<p>Axial Skeleton Skull Appendicular Skeleton</p> <p>Mandible Clavicle</p> <p>Sternum Scapula</p> <p>Ribs Humerus</p> <p>Vertebral column Ulna</p> <p>Sacrum Radius</p> <p> Carpals</p> <p> Metacarpals</p> <p> Phalanges</p> <p> Coxa</p> <p> Femur</p> <p> Patella</p> <p> Tibia</p> <p> Fibula</p> <p> Tarsals</p> <p> Metatarsals</p> <p> Phalanges</p> <p style="text-align: center;">Anterior</p>	
	<p>AXIAL</p>
	<p>FUNCTION</p>

	APPENDICULAR
	FUNCTION

1.1.3. STATE the four types of bones (give examples for practice ☺)



1.1.4. DRAW and ANNOTATE the structure of a long bone

<p>Long Bone</p>	Periosteum.
	Spongy bone
	Articular cartilage
	Diaphysis
	Epiphysis
	Bone marrow
	Marrow cavity

1.1.5. DEFINE the following anatomical terms

Term	Definition with example using bones
Proximal	
Distal	
Superior	
Inferior	
Medial	
Lateral	
Anterior	
Posterior	

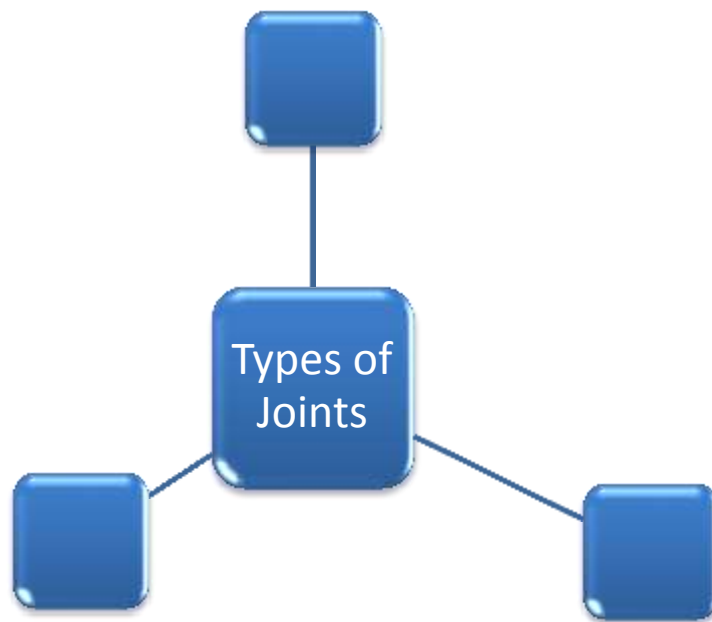
1.1.6 OUTLINE the function of connective tissue

Connective tissue	Function
Tendons	
Ligaments	
Cartilage	

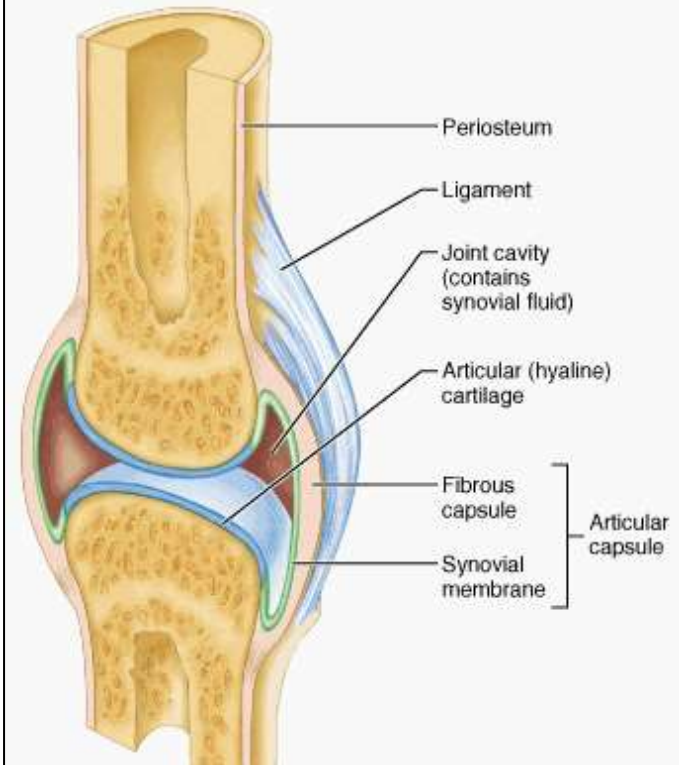
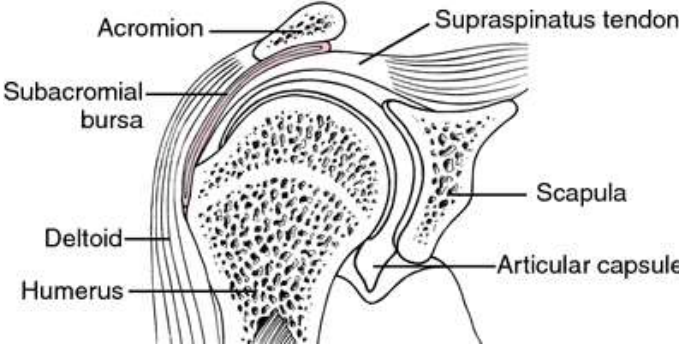
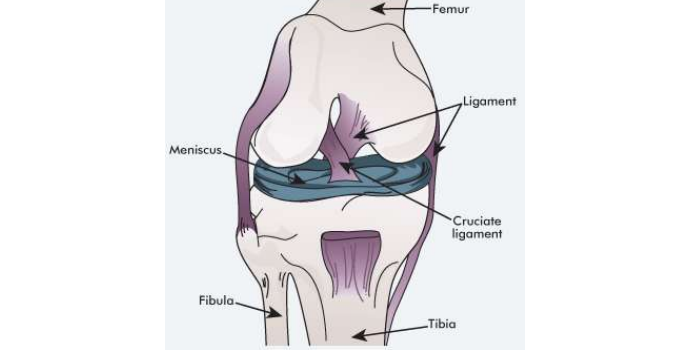
1.1.7. DEFINE the term joint

Joint	
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1.1.8. DISTINGUISH between the different types of joints and movement permitted



1.1.9. OUTLINE the features of a synovial joint

	<p>Articular cartilage</p> <hr/> <p>Synovial/articular/joint capsule</p> <hr/> <p>Synovial membrane</p> <hr/> <p>Synovial fluid</p> <hr/> <p>ligaments</p> <hr/>
	<p>Bursae</p> <hr/>
	<p>Miniscus</p> <hr/>

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.

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.

Movement patterns in the frontal (coronal) plane:

Abduction means to take away and so is characterised by movement away from the midline – for example, a cartwheel in gymnastics.

Adduction means to bring together and so is

figure 3.6 – movement patterns



