IGCSE 0413 Physical Education
Chapter 1: The skeletal and muscular system

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Key terms

Key Word	Definition
Skeleton	The internal framework of the body made up of 206 bones
Bone	A hard, whitish, living tissue that makes up the skeleton; bones are lightweight but strong and perform many functions
Joint	A point in the body where two or more bones are joined in a way that permits movement
Synovial membrane	Surrounds the joint capsule with synovial fluid
Synovial fluid	Acts as a lubricant that reduces friction in the joint, allows for smoother movement and reduces wear and tear
Joint capsule	The structure that surrounds and protects the joint, holding the bones together; made up of an outer fibrous membrane and an inner synovial membrane
Ligament	The strong, elastic fibres that hold the bones together and keep them in place
Cartilage	A strong but flexible material found at the end of the bone that acts as a cushion to stop bones knocking together
Muscle	A band of fibrous tissue that has the ability to contract, producing movement in the body
Tendon	A tough band of fibrous tissue that connects muscle to bone and enables joints to withstand tension
Origin	Where a muscle joins a stationary bone
Insertion	Where a muscle joins a moving bone
Agonist	The muscle that contracts to create movement
Antagonist	The muscle that relaxes during movement
Antagonistic	Antagonistic pairs of muscles work in opposition; they create movement when one (the agonist) contracts and the other (the antagonist) relaxes
Isotonic contraction	Where muscles change length as they contract
Concentric contraction	Muscle contraction where the muscle shortens
Eccentric contraction	Muscle contraction where the muscle lengthens
Isometric contraction	Where the muscles contract, but stay the same length
Muscle fibres	The cells or basic building block of the muscle; they contract when a message from the brain tell them to, enabling movement