## **Year 9 Personal Learning Checklist (PLC)** Assessment Area 1: Knowledge & **Topics: Component of Fitness / Projectile Subject: Physical Education** Understanding **Motion / Muscular Contractions / Analysis** Components of Fitness -Principles of Projectile Motion -Muscular Contractions -• Aerobic Endurance (strength & health of heart & lungs -• Height of release (height of release of • Concentric (shortening) - e.g. bicep curl eg. running, swimming, cycling); body/object) - release object at its highest [as it flexes]. Muscular Endurance (muscles ability to repeat • Eccentric (lengthening) - e.g. position. contractions - eg. continuous running, lifting, jumping); • Angle of release (angle of release of quadriceps during squat [downwards], • Power (combination of speed and strength - eq. boxing, body/object) - release angle 36-42 degrees. Isotonic (moving) - e.g. running, Speed of release (velocity of release of triple jump); jumping, • Speed (how quickly an object/body moves - eg. sprinter); body/object) - release object at its fastest Isometric (without motion) - e.g. plank • Muscular Strength (the force generated by a muscle -Summer eq. weightlifter); • Flexibility (range of movement at a joint - eg. gymnast, Isometric contraction Muscle contracts dancer, trampoline); but does not shorten • Agility (move and change direction quickly and with control - eg. footballer, hockey player, skiing); • Balance (static v dynamic - to keep the body stable - eg. gymnast [still], skiier [moving]); • Coordination (to move 2 or more body parts - eg. tennis [hand-eve]): No movement Reaction time (the time taken to respond to a stimulus -(a) Concentric contraction eg. starting gun, whistle, lights in F1); • Body composition (body mass index - measure of fat-free mass [muscles], vital organs and fat - eq. dancer [low BMI], boxer [high BMI]) Analysis -Kev terms -Identify strengths (to know what you are good at), • Formations (how a team sets up) - e.g. (b) Identify weakness (to focus on areas to improve), defence, attack, midfield, 4:4:2, 3:4:3, Apply corrective measures (to modify a skill) **Eccentric contraction** Tactics/strategy (how to outwit a team/player) - e.g. Gegenpress in football, counter, Set play (a series of predetermined moves) - e.g. corner, centre pass, free kick,



 Aesthetically pleasing (something that looks good) - e.g. pointed toes in seat landing

(c)

## **Components of Fitness**

## **Projectile Motion**

Identify the component of fitness and match it to its definition		What are the 3 main concepts of Projectile Motion?	
Mu En	The time taken to respond to a stimulus (e.g. starting gun, whistle, lights in Formula 1)		
P	The range of movement at a joint (e.g. gymnast, dancer)		
F	The ability to move and change direction quickly and with control (e.g. hockey player, skiing)		
Ag	The ability to keep the body stable (e.g. gymnast [static], skiier [dynamic])	H	Release object at its highest point
R	A combination of speed and strength (e.g. boxing, triple jump)	of release	
Ba	The ability of muscles to repeat contractions (e.g. continuous lifting, jumping)	A	Optimum is 36-42 degrees
		of release	
		s	Release object at its highest velocity
<u>Answers</u> : flexibility, agility, power, reaction time, balance, muscular endurance		of release	