

Athletics Mastery with Max and Leo

Learning objective: To understand the terminology, techniques, and safety principles involved in track and field athletics.

Review these flashcards to master the vocabulary and mechanical principles of athletics. Use these to test your knowledge of how to improve speed, power, and coordination.

What is 'Acceleration' in the context of a 100m sprint?

Acceleration is the rate at which an athlete increases their velocity from a stationary position at the start of a race.

Max the monkey wants to know: Why do athletes use 'starting blocks'?

Starting blocks provide a solid surface for athletes to push against, allowing for a more powerful, explosive start and better acceleration.

Explain the concept of 'Momentum' in long jumping.

Momentum is the product of the athlete's mass and their velocity during the approach run; it is essential for carrying the athlete forward into the sandpit.

Leo the lion asks: What is the primary purpose of a 'Relay' race?

A relay race tests team coordination and speed, specifically focusing on the precision of the baton exchange within a designated 'changeover zone'.

Define 'Trajectory' in the context of a shot put or javelin throw.

Trajectory is the curved path an object takes through the air; athletes must calculate the optimal angle to achieve maximum distance.

Why is 'Stamina' critical for long-distance track events?

Stamina, or aerobic endurance, allows an athlete to maintain a high level of physical performance and consistent pace over an extended period of time.

Compare and contrast 'Velocity' and 'Speed'.

Speed is a scalar quantity referring to how fast an object moves, whereas velocity is a vector quantity that includes both the speed and the specific direction of movement.

What is the importance of 'Recovery' in an athlete's training programme?

Recovery involves rest and nutritional replenishment, which allows the muscles to repair, grow stronger, and adapt to the stresses of training.

Justify why maintaining 'Form' is important during a sprint.

Proper form ensures that energy is directed efficiently, reducing the risk of injury and minimising drag or unnecessary movement that could slow the athlete down.

What might happen if an athlete does not warm up before a competition?

Without a warm-up, muscles may be cold and less elastic, which significantly increases the risk of strains, tears, and poor performance due to lack of blood flow.