

Mastering the Track and Field: An Athletics Guide

Lace up your trainers and prepare to excel: Athletics is all about you vs. your personal best!

- How does a runner use acceleration and stamina differently during a 100-meter sprint compared to an 800-meter race?
- In jumping events, why is the 'take-off' phase considered the most critical moment for transferring horizontal momentum into vertical height?
- Why must an athlete maintain a consistent center of gravity when performing a throwing event to ensure the object travels the furthest distance?
- Compare and contrast the physical requirements needed for a high jump versus a long jump. Which muscle groups are most vital for each?
- How does a professional athlete use the concept of 'pacing' to ensure they do not exhaust their energy stores before the finish line?

Did you know? Did you know? The word 'athletics' comes from the Ancient Greek word 'athlon', which simply means 'contest'. Today, athletes use science to improve their performance—for example, by adjusting the angle of their arm to increase the distance of a throw!

Key vocabulary: sprint · stamina · trajectory · acceleration · momentum · technique · endurance · discipline