TEL PE Revision

Revision Series 2022

OCR A-Level Physical Education

Biomechanics

• Notes pages •

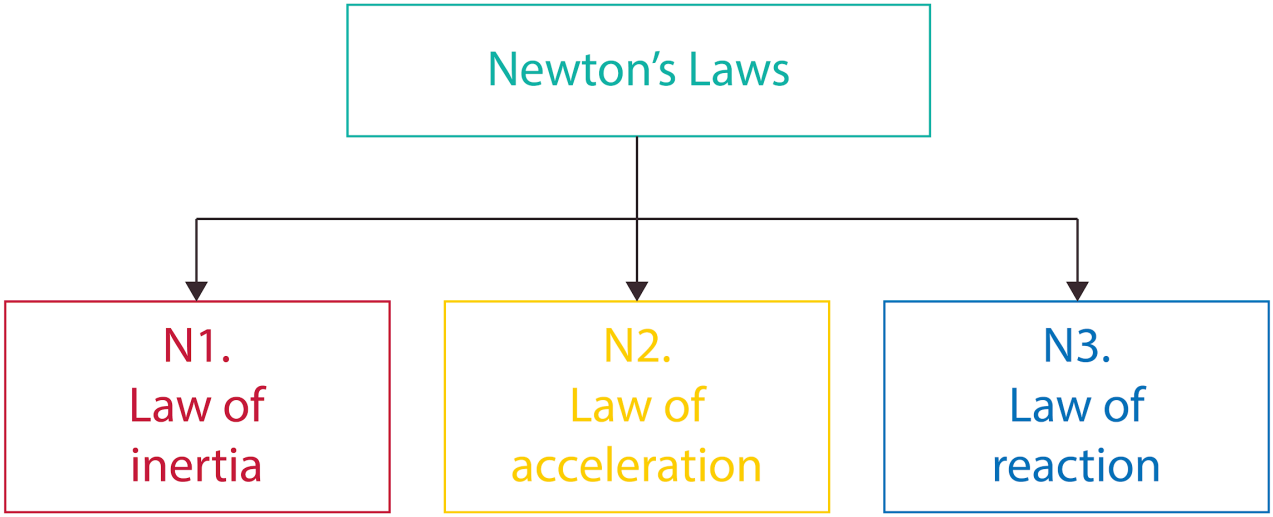
The EverLearner

Welcome to the 2022 Revision Series for OCR A-Level Physical Education! We hope you find it useful. Before we start, please make sure you have all of the documents below, as they will be great help for your revision:

- Notes pages
- Practice questions
- Mark schemes
- Model answers
- Infographics
- Revision timetable

You will find all these documents on our OCR A-Level PE Revision page (https://pages.theeverlearner.com/2022-ocr-a-level-pe-revision).

Newton's laws of motion



Notes

Law of Inertia

An object will continue in a state of constant velocity
until compelled to change by an external force.

Notes

Law of Acceleration

An object will accelerate proportional to the force acting and in the direction of that force.

Force = mass x acceleration

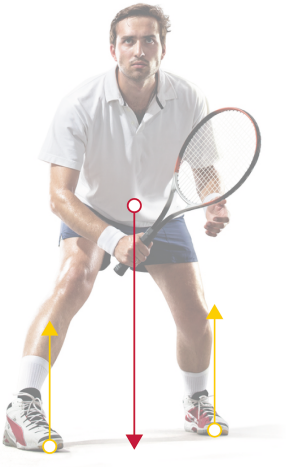
Notes

Law of Reaction

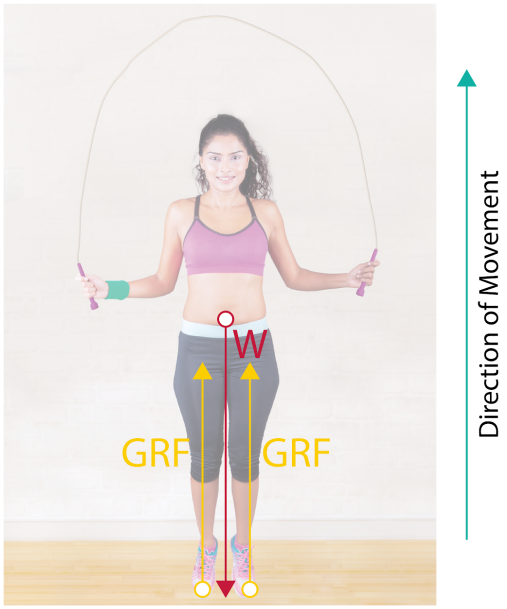
For every action, there is an equal
and opposite reaction.

Notes

Force



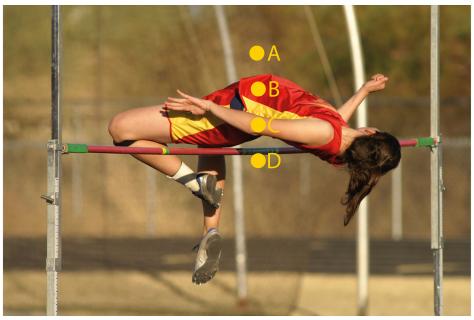
No movement


W
GRF
GRF
Direction of Movement

Factors affecting friction and air resistance

Notes

Centre of mass and stability



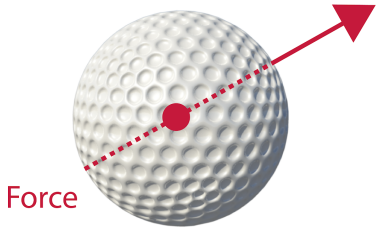
Notes

Factors affecting stability

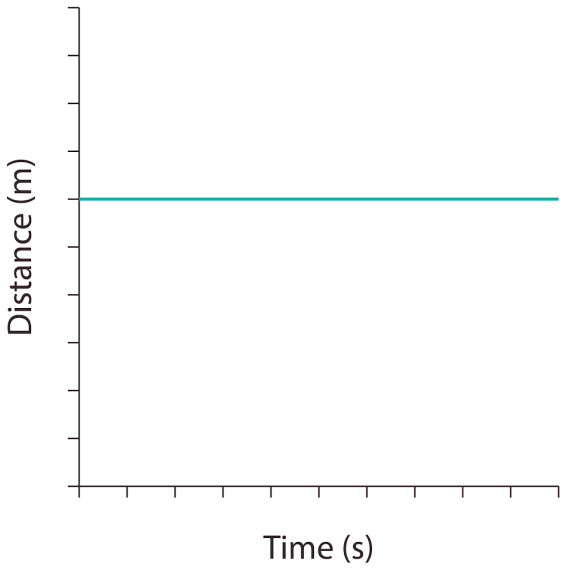
Notes

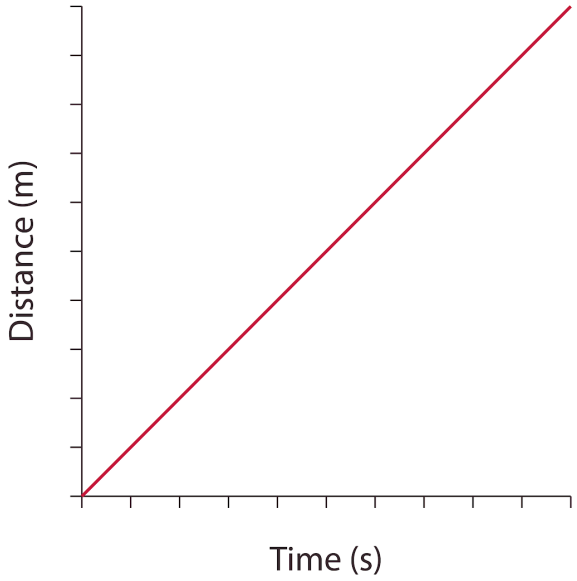
Linear Motion

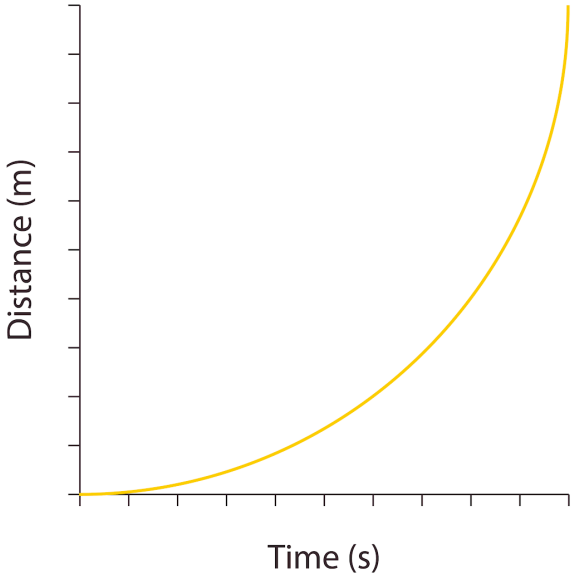
All parts of a body move in a straight line or curve in the same direction, at the same time, at the same speed.

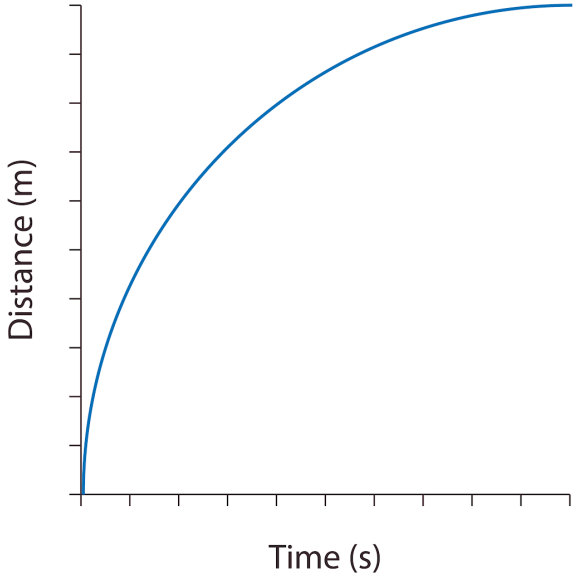


Notes


Distance (m)
Time (s)

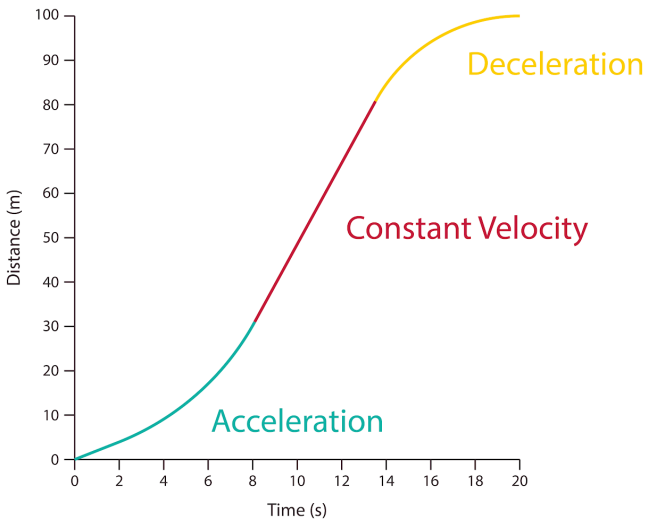

Distance (m)
Time (s)


Distance (m)
Time (s)


Distance (m)
Time (s)

Notes

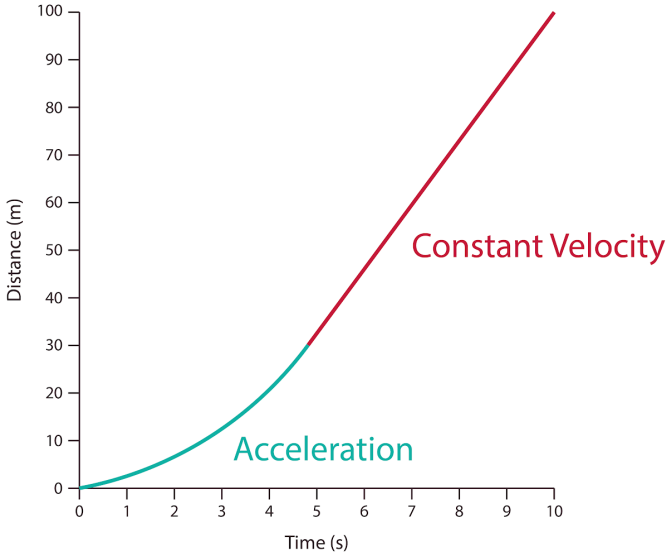
Distance-time Graph for an Amateur Sprinter



Notes

Notes

Distance-time Graph for an Elite Sprinter



Task:

Sketch a distance time graph for a 400m runner.

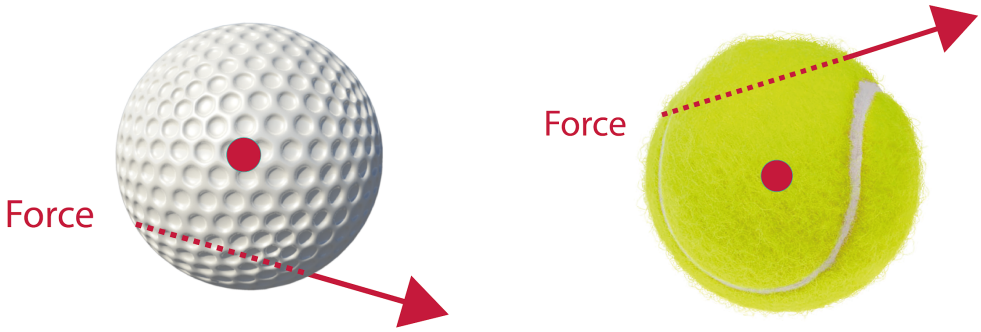
Choose one of the following tactics:

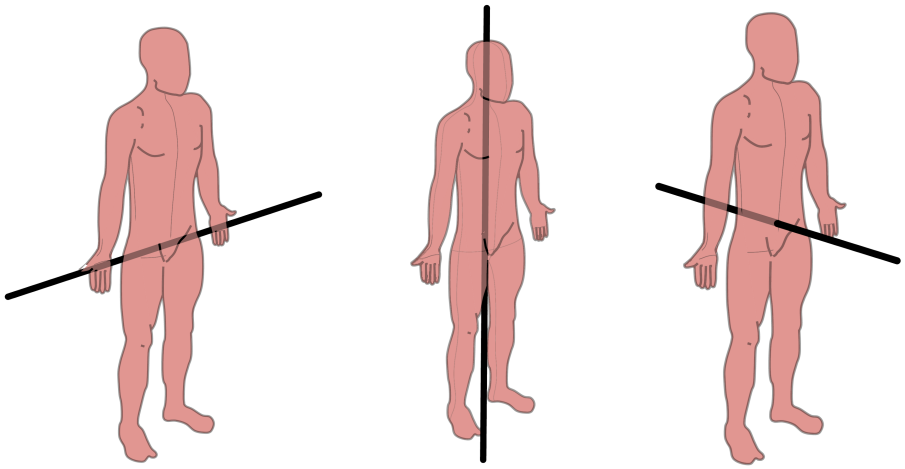
1. Runs a consistent split time.
2. Runs a first fast 250m and tries to hang on as they fatigue down the home straight.
3. Runs a steady first 250m and hits top speed for the last 150m.

Notes

Angular motion

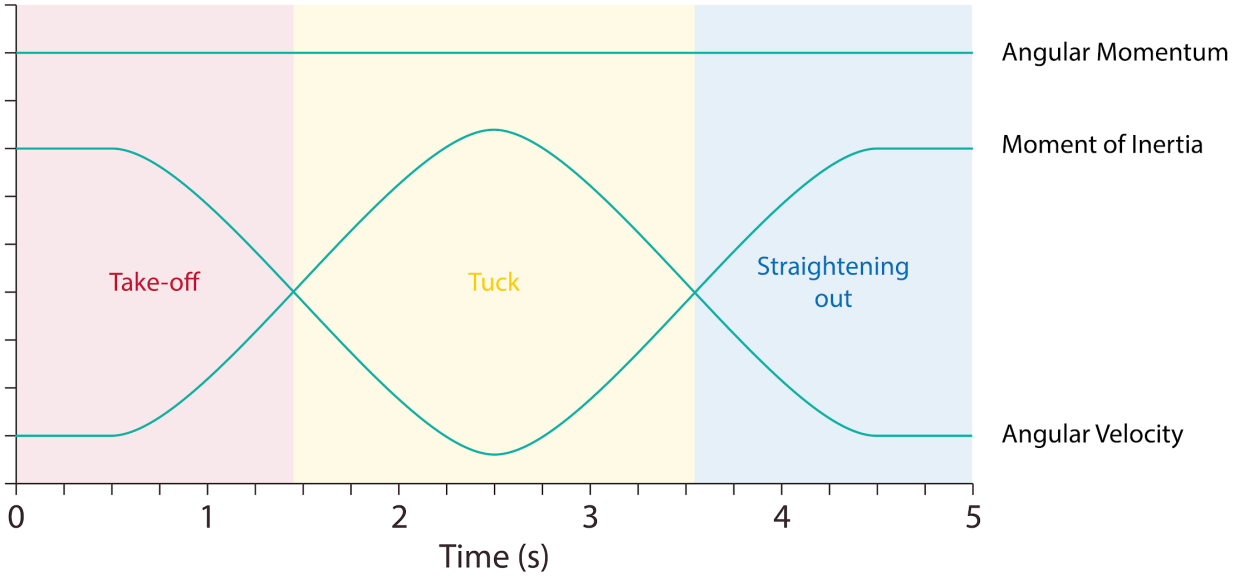
Definition





Notes

Angular Momentum



A rotating body will continue in a state of constant angular momentum until an external torque acts upon it.

Notes