

Causal Reasoning in Mechanics

Duration: 5 days

Session Times: 1. 9:00 am - 10 am

2. 10:30 am - 11:30 am

Venue: To be arranged by participants

Suitable for: High school students who have a keen interest in gaining a deeper understanding

of the world. (Grade 10 & above)

Fee: Honorarium

Facilitator: Pergan Naicker (Contact Number: +27 63 075 7916)

Course Outline

The world is a structured ordered system. To better understand it requires one to reason in terms of cause and effect. This interactive learner-centric course gives participants first hand knowledge of the causal relationships playing out in the field of mechanics. Participants not only gain valuable insight in the mechanical universe but also learn to reason from first principles. Apparatuses together with guided exercises engage participants in this regard.

A breakdown of the workshop can be found below (subject to change):

Day 1 - Speed and Reference Frames

Day 2 - Acceleration of Falling Objects

Day 3 - Newton's Laws

Day 4 - Force & Work

Day 5 - Leverage & Gravity