

Newton's laws of motion

KS5 Aims:

- ...
- To understand what is motion
- To understand how to relate motion with force and the central role of frames of reference
- To understand the meaning of Newton's Laws of Motion

E-mail Resources:

- ...
- Powerpoint to help the teacher in the presentation
- Set of short movies extracted from Ref.3
- Activities and questions to be introduced along the presentation. Students should be encouraged to think by their own and the teacher should help them to consolidate their findings.

Suggested references and other resources for the teacher

[1] Physics for the Inquiring Mind, *Eric M. Rogers (Princeton University Press, New Jersey, 1960)*

[2] fundamentals of physics *R. Shankar (Yale University Press, New Haven and London, 2014)*

[3] Physics: Frames of Reference 1960 PSSC Physical Science Study Committee; Reference & Relativity

Sequence of the presentation

Part 1- Introduce the fundamentals concepts needed to describe motion. Describes what is Mechanics and its subdivisions. The mathematical pre-requisites to quantitatively describes and understand the Dynamics of motion. The utility of frames of reference and the framework used to think about motion in space and time.

Part 2 – Introduces and discuss the importance of the frames of reference. Galilean transformations.

Part 3 – The concept of force and discuss the Newton's three laws of motion.

This module precedes the following module 2 on Newton's laws of motion, presenting and discussions its applications in various contexts of basic science and engineering.

Calendário do Curso

Semana	Disciplina	Problemas Práticos
Semana 1	Introduza a disciplina	Introduza os problemas práticos
Semana 2	Introduza a disciplina	Introduza os problemas práticos
Semana 3	Introduza a disciplina	Introduza os problemas práticos
Semana 4	Introduza a disciplina	Introduza os problemas práticos

Calendário de Exames

Semana	Disciplina
Semana 1	Introduza a disciplina
Semana 2	Introduza a disciplina
Semana 3	Introduza a disciplina
Semana 4	Introduza a disciplina

Informações Sobre Trabalhos de Casa

Quer adicionar mais tabelas ao seu documento semelhantes às tabelas Calendário do Curso e Calendário de Exames? Não há problema. No separador Inserir, clique em Tabela e crie uma tabela do tamanho que quiser. Será inserida automaticamente no mesmo estilo das restantes tabelas deste programa.

Informações Adicionais

Selecione "Semestre e Ano" no rodapé, atualize o texto e o mesmo será automaticamente alterado em todas as páginas.