



PHYSICS: BRIDGING ACTIVITY

Materials Research

Introduction

This piece of work is intended to introduce the skills of researching and referencing information from books, journals and the internet. The topic links the study of materials and their properties with practical applications of the material.

Aim

To produce a written (typed) report illustrated with diagrams of approximately three A4 pages or about a 10-page PowerPoint presentation detailing how:

- the internal structure of a material gives rise to a specific (useful) property of the material,
- this property then makes the material suitable for its particular application.

Choose from one of the topics below:

- Carbon fibre in fishing poles
- Kevlar in bullet proof vests
- Reinforced concrete as a composite material for large structures
- Bone as a composite material
- Wood in World-War II planes (e.g. de Havilland Mosquito)
- Lycra in sportswear
- Lightweight alloys in aircraft
- ABS plastic in hard hats.

You should be ready to present your work to the class.