

**Years: 10 and 11** 

# "All you are is a bag of particles acting out the laws of Physics"

Brian Greene

#### **Course content**

At GCSE we develop a more formal, mathematical approach to the study of Physics. We start by focussing on key ideas such as Energy, Forces and the Laws of Motion. These key ideas are then applied in a wide range of situations from car safety to the origin of the universe itself.

### Skills developed

- Algebraic and numerical techniques
- Data collection and processing
- Graphical interpretation
- Constructing hypothesis
- Planning and conducting experiments
- Evaluation of experimental methods

#### For more information

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## **Topics covered**

- Work and Power
- Thermodynamics
- Kinematics
- Newton's Laws
- Density and Pressure
- Static Charge
- Electricity
- Electromagnetism
- Waves and Optics
- EM Spectrum
- Nuclear Physics
- Astrophysics

