

Programme of Study



Subject: Physics (Exam board AQA)

Year: 10 (Triple and Trilogy)

Autumn 1

- Atomic Structure
- The history of the Atom
- The structure of the Atom
- Radioactivity
- Activity and Half life
- Irradiation and Contamination
- Background Radiation (Triple)
- Risks and Uses of Radiation (Triple)
- Nuclear Fission and Fusion (Triple)

Autumn 2

- Forces Basics
- Contact and Non- Contact Forces
- Weight, Mass and Gravity
- Resultant Forces
- Work Done
- Forces and Elasticity
- Required Practical 6: Investigating Springs
- Moments (Triple)
- Fluid Pressure (Triple)
- Upthrust (Triple)

Spring 1

- Forces and Motion
- Distance, Displacement, Speed and Velocity
- Acceleration
- Distance- Time Graphs
- Velocity- Time Graphs
- Terminal Velocity
- Newton's First Law
- Newton's Second Law and Inertia
- Required Practical 7: Investigating Motion
- Newton's Third Law

Spring 2

- Car safety and momentum
- Stopping Distances
- Graphs of Stopping Distance
- Reaction Time
- Breaking and Energy transfer
- Momentum

- **Changes in Momentum (Triple)**

Summer 1

- **Waves**
- **Properties of Waves**
- **Wave Basics**
- **Features of Waves**
- **Wave speed**
- **Required Practical 8: Investigating Waves**
- **Refraction of Waves**
- **Reflection of Waves (Triple)**
- **Required Practical 9: Investigating Light (Triple)**

Summer 2

- **Electromagnetic Waves**
- **What are Electromagnetic Waves?**
- **Radio waves**
- **More EM waves and their Uses**
- **Dangers of EM Radiations**
- **Visible light and Colour (Triple)**
- **Infrared Radiation (Triple)**
- **Required Practical 10: Investigating IR Emissions and Absorption**
- **Black Bodies and Radiation (Triple)**