



Year 13 Physics Teacher A Learning Journey Map

Mass and Energy

Revision

Working Scientifically – Turning Points in Physics:

- Apply scientific knowledge to practical contexts
- Comment on experimental design and evaluate scientific methods
- Plot and interpret graphs

Topics to revise with Teacher A:

- Particles and Radiation
- Electricity
- Thermal Physics
- Nuclear Physics
- Turning Points

Length Contraction

PPEs



Time Dilation

Einstein's Theory of Special Relativity

Michelson-Morley Experiment

Electron Microscopes

Electromagnetic Waves

The Photoelectric Effect

Wave-Particle Duality

Young's Double Slit Experiment

Electricity - Maths Skills:

Newton's Corpuscular Theory of Light

Milikan's Determination of Electronic Charge

Specific Charge of the Electron

Turning Points in Physics - Maths Skills:

- Recognise and make use of appropriate units in calculations
- Recognise and use expressions in decimal and standard form
- Estimate results
- Change the subject of equations, including non-linear equations
- Substitute into and solve algebraic equations

Turning Points in Physics

Thermionic Emission of Electrons

Cathode Rays

Mass and Energy

Induced Fission

Safety Aspects

AP1



Nuclear Radius

Nuclear Instability

Radioactive Decay

Nuclear Physics

YEAR 13

Nuclear Physics – Working Scientifically:

- Plot and interpret graphs
- Process and analyse data using appropriate mathematical skills

Nuclear Physics – Maths Skills:

- Understand simple probability
- Make order of magnitude calculations
- Translate information between graphical, numerical and algebraic forms
- Use logarithmic plots to test exponential and power law variations