The PHYSICS LEARNING JOURNEY

YEAR 13

Medical Physics — Test — **Revision** — A Level Exams

Test

- X-ray production
- X-ray use & attenuation
- Tracers, gamma cameras PET
- Ultrasounds

Nuclear Physics — Test — Mock exam — **Electromagnetism** — Test — **Electric Fields** — Test

- Exploring the atom
- Fundamental particles
- Radioactive decay
- Half lives
- Nuclear fission & fusion

- Magnetic field lines
- Charged particles in B-fields
- Induction
- Transformers

- Electric field lines
- Coulombs Law
- Uniform electric fields
- Electric potential energy

Capacitors — Test

- Capacitors-theory
- Series & parallel
- Energy
- Charging & discharging

Thermal Physics — Test — **Circular Motion & SHM** — Mock exam — Test — **Astrophysics** — Test

- Temperature
- States of matter
- Brownian motion
- Internal energy
- Heat capacity
- Latent heat

- Circular motion
- Centripetal force
- SHM
- Energy
- Damping

- Life cycle of stars
- H-R diagrams
- Emission & absorption
- Wien & Stefan
- Distance to stars
- Life of the universe

EOY Exam — **Revision** — Test — **Quantum Effects** — Test — **Waves II** — Test

- Photon energies
- Photon electric effect
- Wave particle duality

- Polarisation & intensity
- Interference
- Young's double slit
- Diffraction
- Stationary waves

YEAR 12

Test — **Circuits II** — Test — **Forces & Motion II**

- Drift velocity
- Resistance
- Series & parallel circuits
- Kirchhoff
- Potential dividers

- Projectiles
- Moments
- Springs
- Young's modulus
- Newton & momentum
- Collisions

Waves

- Wave motion
- E-M Waves
- Refraction

- Charge
- P.D & volts
- Energy transfer
- Resistance
- LDR & thermistors
- Power

Test — **Forces & Motion** — Test — **Circuits** — YEAR 12 — welcome

- Kinematics
- SUVAT
- F= ma
- Friction & velocity
- Kinetic energy & GPE
- Power & efficiency

To develop Knowledgeable, Skillful, Inquisitive Scientists