



Separate Physics KS4 Learning Journey

YEAR

12



GCSE Electromagnetism

How magnets work, motor effect, magnetic fields, generators, transformers.

GCSE Space

Formation solar system, star life cycle, orbit and satellites; red shift and dark matter.

GCSE Waves

Wave types, wave properties, EM spectrum; its uses and dangers. Reflection, refraction, seismic waves and ultra-sound.

GCSE Pressure

Surface pressure, atmospheric pressure, fluid pressure, work on a gas.

YEAR

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GCSE Radiation

Atoms, isotopes, types of radiation, fission, fusion, half-life and radiation uses.

GCSE Forces

Vectors, scalars, weight mass, resultant forces, resolving forces, moments and gears.

GCSE Motion

Motion graphs, acceleration, SUVAT, terminal velocity, momentum, car safety.

GCSE Electricity

Circuit symbols, charge, current, voltage, resistance, power, circuit types and domestic electricity.

GCSE Particles

Solids, liquids and gases. State changes, density, specific heat capacity, latent heat and insulation

YEAR

10

GCSE Energy

Energy stores, energy transfers, calculating energy changes, power and efficiency.

GCSE Energy Resources

Energy usage and how it is affected by political, economic and scientific issues. The environmental impact of using energy, how renewable and non-renewable energy sources and the advantages and disadvantages of using them.

YEAR

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