Science KS4 Physics Learning Journey

Topic 7: Electromagnets
Fleming's left hand rule
Triple – Loud speaker, microphones & transformers

Assessment

Topic 8: Space (triple only)
Solar systems
Life Cycle of a star
Motion and Satellites
Red Shift

GCSE Exams: Triple or combined

Topic 7: Pole of magnets and magnetic fields
Magnetic fields of electric current
Solenoids

Assessment

Topic 6: Transvers & longitudinal
Wave equation
EM Spectrum
IR Absorption
UV, X-Rays & Gamma
Triple: – Sound waves, seismic waves, light, lenses, black body radiation

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Topic 3: Particle model of matter:
Density of objects
States of matter
Particle motion in gases
Triple – Boyles law

Assessment

Topic 5b: Forces:
Speed
Acceleration
Velocity- time graphs
Motion
Newton's 3rd Law
Keeping roads safe

Topic 2: Electricity cont:
IV Graphs
Series & Parallel circuits
AC/DC, plugs & Cables
Fuses & Power calculations

Topic 2: Electricity:
Circuit components
Triple – Static & electric fields
Potential difference & Resistance
Resistance of a wire

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Topic 1: Energy:
Stores & transfers
Calculations
Conduction & Insulation

Assessment

Topic 1: Energy Cont:
Specific Heat capacity
Triple – Thermal Insulators
Non renewable
Renewable
Energy Issues

Topic 4: Atomic Structure:
Atomic structure
Types of radiation
Half life
Background radiation
Triple – Fission, fusion & issues

Topic 5a: Forces:
Contact & non-contact
Weight & mass
Resultant force
Force & Extension

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