Year 9 Triple Physics Curriculum Plan							
Unit	Core		Hinterland		NC Coverage	Assessment	Whole Education Opportunities
	Knowledge	Skills	Knowledge	Skills			
Waves and the EM Spectrum	• Describing waves • Wave speed calculations • Refraction • Ears and hearing • Ultrasound • Infrasound • Refraction and total internal reflection • Colour • Lenses • The electromagnetic spectrum • Applications of different types of electromagnetic wave • Dangers of the different types of electromagnetic wave • Radiation and temperature, including the greenhouse effect	• Comparing transverse and longitudinal waves • Using and converting between pre-fixes • Using and rearranging equations • Triangulation methods in 2D • Using and rearranging equations • Using and converting between pre-fixes • Drawing ray diagrams • Measuring angles	• Earthquake detection and prediction • Designing earthquake resistant structures • Hearing damage and sound safety • Applications of lenses – telescopes, correcting vision etc • Applications of total internal reflection including fibre optics in communications and medicine. • Colour blindness • Linking radiation and temperature to earth's long term climate changes, historically and in the future	• Finding the focal length on lenses	4WD2 4WD3 4WD4 4WE1 4WE4 4WV1 4WV2 4WV4 4WV5 4WV6 4WA1a 4WA1e 4PG1 4PW1 4PW2 4PW5 4PW6	End of topic assessment (30 marks – CP4-5) • PR points use mixed topic assessments • PLC tests (10 marks each) – 2 in this topic	• Media – communications
Energy	• Energy stores and transfers • Energy efficiency • Keeping warm • Stored energies • Renewable and non-renewable resources • Work and power equations and application of these.	• Using energy diagrams and Sankey diagrams • Using and rearranging equations with more than 3 components • Converting units	• Saving energy in houses • Climate change and impacts of energy resources	• Debating skills	4WD2 4WD3 4WD4 4WV1 4WV2 4WV5 4WV6 4WA1a 4WA1c 4PE3 4PE4 4PE5	End of topic assessment (35 marks) PR points use mixed topic assessments	• Geography – environmental impacts of energy resources
Motion and Forces	• Resultant forces • Newton's laws of motion (first, second and third) • Mass and weight • Momentum • Stopping distances and crash hazards • Braking distances and energy • Vector and Scalar measurements • Distance/time graphs • Acceleration • Velocity/time graphs	• Measuring and comparing mass and weight • Measuring speed and calculating acceleration using stopwatches and light gates • Using and rearranging equations • Plotting and analysing scatter graphs • Drawing and analysing line graphs (including area under the line) • Using and rearranging equations • Calculating areas of rectangles and triangles.	• Car/road safety features	• Applying scientific knowledge to real-world scenarios (4WD4)	4WD2 4WD3 4WD4 4WV1 4WV2 4WV5 4WV6 4WA1a 4WA1c 4PF2 4PG2 4PG5 4PO2 4PO3 4PO4 4PO5	End of topic assessment (30 marks) PR points use mixed topic assessments	•